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UNITED STATES DEPARTMENT OF INTERIOR

BUREAU OF LAND MANAGEMENT

INFORMATION RESOURCES MANAGEMENT

TACTICAL PLAN

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

February 1993

Attachment 1-1

INFORMATION RESOURCES MANAGEMENT

TACTICAL PLAN

Executive Summary

The IRM Tactical Plan is the plan for implementing the Information Resources Management activities at the Bureau level (for Bureauwide projects) and at the field office level (State, District, and Area offices). It describes the projects and other activities currently underway in the BLM to achieve the modernization goals described in the Information Resources Management Strategic Plan.

A primary vehicle for achieving the goals set forth in the BLM's Strategic plan is the sucessful implementation of the ALMRS/Modernization project.   Progress by the Bureau toward effective use of information requires sucessful management of the entire IRM program, of which the ALMRS/Modernization program is an important part.   Therefore, a principal purpose of the plan is to ensure that when the ALMRS/Modernization Project is implemented, the people are trained, the platform is installed in an orderly manner, and the data is ready to allow the Bureau to conduct its business using a modern operating system.

In order to lay the framework for this undertaking, this plan will describe the relationships and dependencies of those projects and activities that are necessary to successful implementation of the ALMRS/Modernization project. It also documents the key milestones to be achieved over the next three years for BLM's major automation and records administration projects and lays the framework for achieving objectives identified out to five years in the future.

This document addresses the planned activities by describing them as components of four categories of activity areas: Projects; Records & Data; Planning & Business Process; and People.   In order to place the planned activities within the framework of established policy and guidance, the document begins with a summary description of other plans and directives that are pertinent to the execution of activities planned here.

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INTRODUCTION

In January, 1992 the BLM completed its first Information Resources Management Strategic Plan. The Bureau has also implemented guidance on the planning and implementation of automated information resources management projects (AIM Projects). A number of such projects have been chartered, the largest of which is the ALMRS/Modernization project. This Tactical Plan includes developments relating to modernization projects conducted at the Denver Service Center and pilot sites, as detailed in project plans, and IRM activities conducted at the field office level, as detailed in State Office Information Resources Management Plans (IRMPs). All Bureauwide Automation Information Resource Management Modernization (AIM) efforts will be included in this Tactical Plan. Specific guidance on the AIM process is included in a series of AIM implementation memoranda that have been supplemented by a series of Instruction Memoranda. Both the implementation memoranda and the Instruction Memoranda will be replaced by permanent Manual and Handbook sections that are currently being drafted.

a. The purpose of this plan is to:
  o set forth specific activities the BLM will undertake to implement modern Information Resources Management methods to help accomplish its mission as a land management agency in a more efficient and effective manner.
  o set out a logical and incremental approach to achieving the BLM's goals in Information Resources Management.
  o identify the steps the BLM will take to implement the IRM Strategic Plan. Provide guidance that will be used to execute that plan and describe the linkages among current projects and their dependency to the ALMRS/Modernization Project.

It is the goal of this plan to describe a comprehensive approach to implement the IRM program that will direct resources in a coordinated way toward supporting the BLM's primary missions and attain the objectives set forth in the BLM's Strategic Plan. BLM will be better able to achieve each of the following goals stated in the Bureau's IRM Strategic Plan by accomplishing the planned IRM activities stated below These activities are described in this tactical plan:

BLM Goal 1
  Achieve multiple use of public lands in order to obtain an ecologically sound environment and contribute to a strong economy.
Tactical Planned Activity:
  ▶ This goal is to be supported by execution of the ALMRS/Modernization contract building on the prototype completed in 1992 as well as completion of collection and quality assurance of the associated corporate data bases.

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The rapid, accurate display of data will enable more appropriate land use decisions, avoiding incompatible uses.

BLM Goal 2

Develop partnerships with public, private and industry groups, Native Americans, and individual volunteers as an ongoing effort to improve the management of natural resources.

Tactical Planned Activity:

▸ Develop and execute an effective Outreach Communications Plan.

▸ Participate on the Federal Geographic Data Committee (FGDC).

▸ Foster information sharing agreements between BLM and other federal and state agencies.

BLM Goal 3

Improve resource conditions to prevent environmental degradation through sound land use management.

Tactical Planned Activity:

▸ Establish Data Standards for Automated Resource Data.

▸ Enable the procurement of hardware and software through the Resources option of the ALMRS/Modernization contract to be used as GIS decision support tools.

BLM Goal 4

Employ a Human Resource work force that are knowledgeable and proficient in the use of modern information management technologies.

Tactical Planned Activity:

▸ Implement the activities described in the IRM Tactical Plan chapter entitled "People".

BLM Goal 5

Strengthen research, science, and technical development efforts to accommodate the growing need and emphasis on global environmental issues.

Tactical Planned Activity:

▸ Establish policies, procedures, and Life Cycle Management support for all AIM-related projects.

▸ Implement Automated Support for the Public Land Survey System by developing the Geographic Coordinate Data Base.

BLM Goal 6

Foster a service ethic that is responsive to the public and meets the needs for sharing of environmental information.

Tactical Planned Activity:

▸ Implementation of ALMRS will enable BLM to provide the public with more rapid response to inquiries and use applications.

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▶ The ALMRS system will enable direct public access to information at approximately 156 sites.
▶ Activities described in the chapter entitled "Data" will improve and maintain a high degree of accuracy for the BLM's data.

b. Objective -
The objectives of this plan are to identify the steps to sucessfully complete the above activities in such a way as to:
1. prevent duplication of efforts in information collection, processing, systems development, and support;
2. ensure the effective use of available technology; and
3. ensure that adequate planning for necessary funds and infrastructure occurs in an orderly manner within the context of the BLM's normal budget development process.

c. Scope of the Plan -
This plan will address all automated systems designed for Bureauwide use and projects chartered by the IRMRC, all major automation procurements, management and administration of Official BLM records, Bureauwide data collection, validation and quality assurance efforts.

d. BLM - 2015
BLM initiative 2015 is an internal effort established to review and recommend ways to streamline our present processes for conducting business. Certain aspects of this endeavor may affect or be implemented in part through Information Resources Management processes thus requiring both time and effort from IRM staff throughout the BLM. Items currently under consideration for process review, with implications for IRM support include the following:

· Better response to customers both internal (immediate access to FFS for State Office budget staff) and external (changes to customer requests - contracting).

· Providing new and better tracking systems for financial items (credit cards, separating work load accomplishments from FFS), and programs (tracking key program elements and statistics for oil and gas I&E).

· Improve processing of financial documents, such as payment/late payments and penalties, and travel vouchers.

· Providing technical assistance for multiple users and to provide systems with screen updates.

Future updates to this Tactical Plan will specifically address implementation of those process changes that are approved by the BMT.

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People + Data + Technology = Products
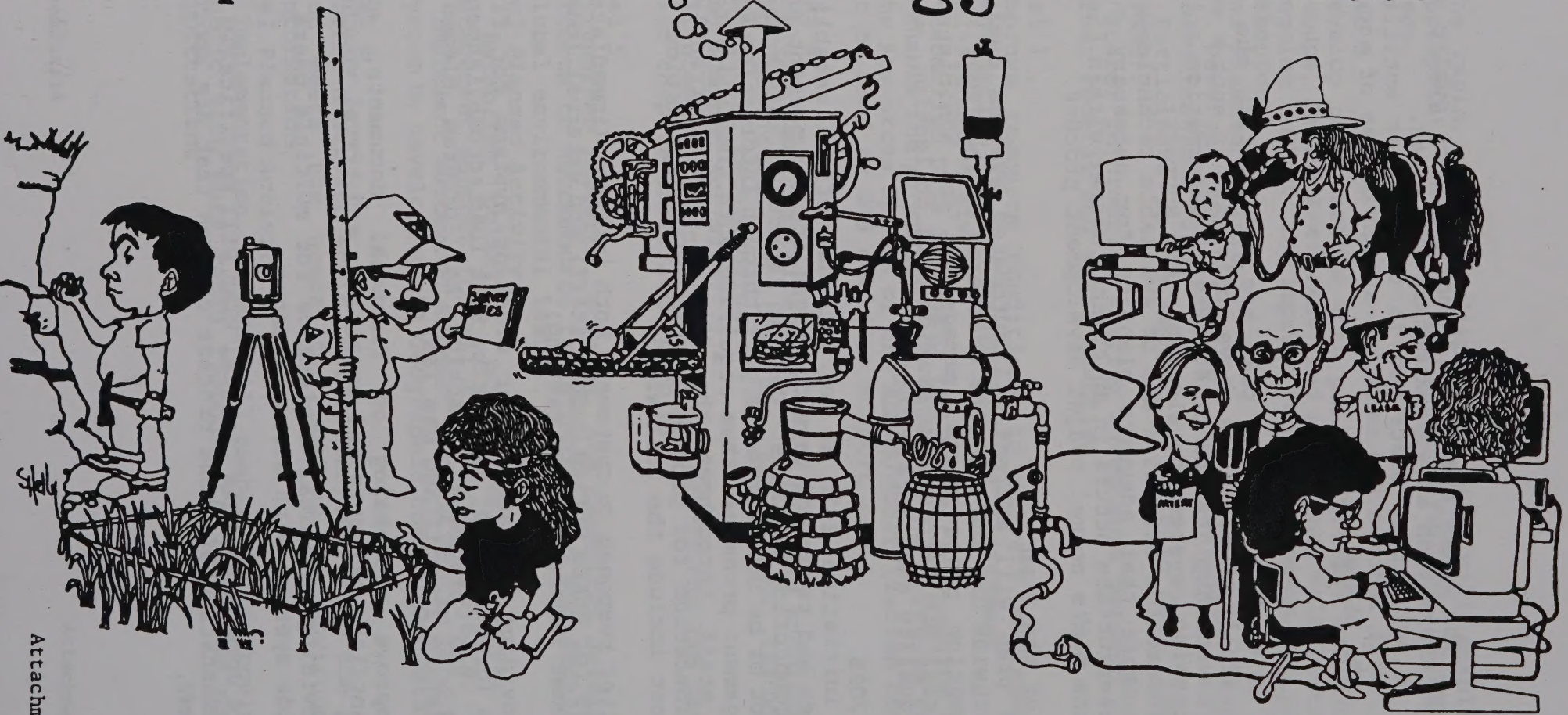
IRM ACTIVITIES
SUPPORTING BLM GOALS

GOAL 1   MULTIPLE USE

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
ALMRS Project (incl. Res. Option)					xxxx	2002
Data Dictionary Transition		xxx				
Data Collection/ Validation Project		xxx				
Data Quality Assurance		xxxx	xxxx			
Data Conversion Plan		xx				
ESO Data Collection & Conversion Project		xxxx	xxxx	xxxx	xxx	
Records Release II Project		xxxx	xxxx	x		
AFMSS Project	TBD					

GOAL 2   PARTNERSHIPS

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Outreach Plan approval		x				
FGDC & IGDC Participation		xxxx	xxxx	xxxx	xxxx	--->
Blanket MOU for BLM/USGS spatial products		xx				
ALMRS IOC Applications Development with USGS		xxxx	x			

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
National Association of Counties agreement		xxxx	-->			
DOI Mapping/GIS Task Force		xxxx	-->			

GOAL 3   IMPROVE RESOURCE CONDITIONS

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Establish ARD Standards		xxxx	xxxx	x		
Implement Resources Option of ALMRS						1997 -> 2002
GIS Improvement Project		xxxx	x			
LAWNET Project		xxxx	x			

GOAL 4   KNOWLEDGEABLE WORKFORCE

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Promulgation of the AIM/LCM Manual & Handbooks		xxx				
Revise IRM Review Process		xxxx				
AIS Security Awareness Training Videos		xx				
GIS Awareness Training Program			xxxx	xxxx	xxxx	--->
Managers Guide for Geopositioning Systems		xxxx	xx			

GOAL 5   RESEARCH & SCIENCE

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Geo-sciences Policy Guidance Document		x				
GCDB Collection		xxxx	xxxx	xxxx	xxxx	1997
MIDAS	TBD					
Mapping Sciences Manual		xxxx				

GOAL 6   SERVICE TO THE PUBLIC

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Rapid Service (ALMRS Project Implementation)			x	xxxx	xxxx	-->
Public Access to Automated Records (ALMRS Project Implementation)			x	xxxx	xxxx	-->
GLO Project		xxxx	xxxx	xxxx	xxxx	-->

ADMINISTRATIVE SERVICE/SUPPORT for Achieving BLM Goals

Activity		FY-1993	FY-1994	FY-1995	FY-1996	End FY-
Admin Component of ALMRS Contract		x	xxxx			
Records Transition Project		xxxx	xxxx	xxxx	xxxx	
COOP Handbook (H-1264-1)		xxx				
Risk Analysis Handbook (H-1264-3)		xxxx				
AIS Security Manaual		xxx				

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SPM/M Directives		xxxx				
FPPS Project Implementation					x	
IDEAS Project Implementation				x		

WE'VE ALL GOT TO PULL TOGETHER
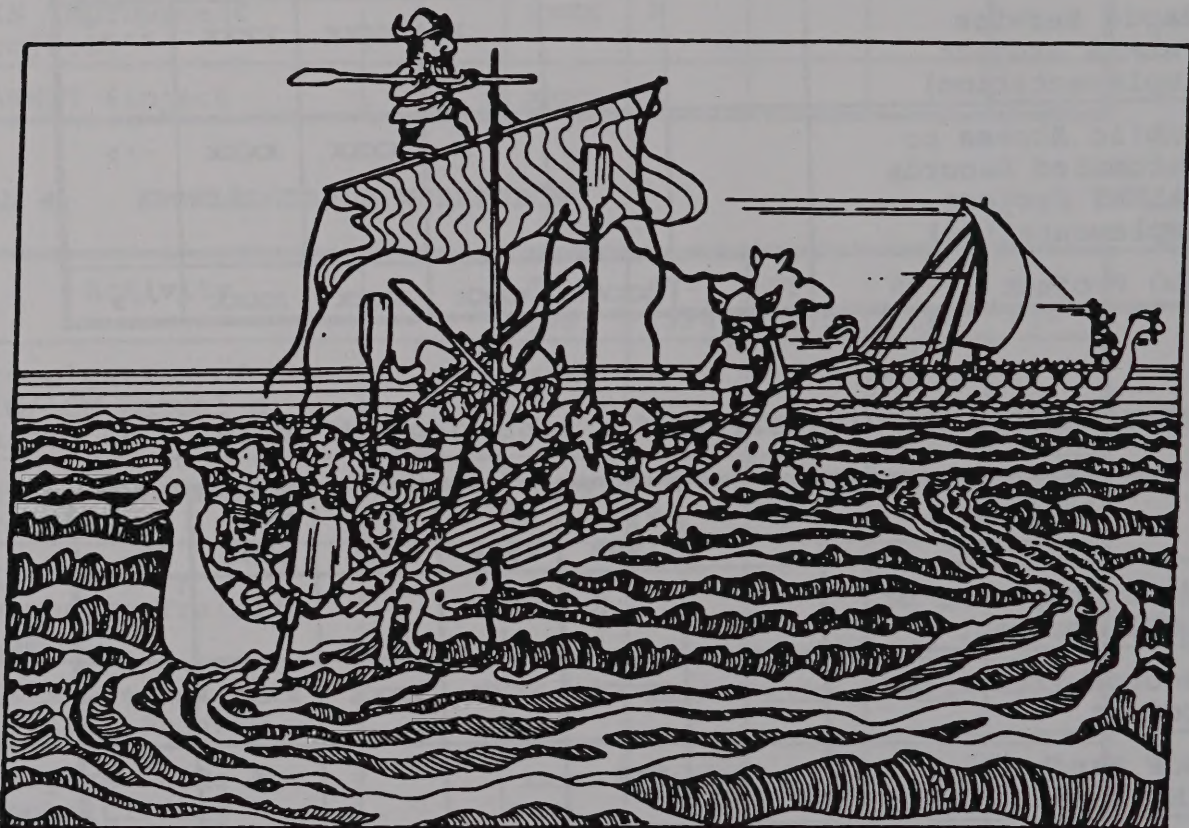
CHAPTER I
RELATIONSHIP TO OTHER PLANS and DIRECTIVES

The Tactical Plan is designed to further the objectives of certain OMB and Departmental directives as well as the Bureau's IRM Strategic Plan. Those objectives are described in detail in the following documents:

OMB Circular No. A-130, Management of Federal Information Resources outlines OMB's responsibility for maintaining a comprehensive set of information resources management policies and for promoting the application of information technology to improve the use and dissemination of information by Federal agencies. which provide a policy framework for the management of Federal Information resource.

(1) IRM planning, with special focus on the information life cycle.

(2) The role of State and local governments in the management of IRM resources and the need for Federal agencies to consider the effects of their information activities on those governments.

(3) Records management, with a special focus on the need to properly manage electronic records.

(4) Electronic collection of information. Identifying those conditions where agencies should consider using electronic collection techniques in order to reduce costs or provide better services.

(5) Information dissemination policy, stating the basic responsibility of all agencies to disseminate information consistent with their missions, and laying out the structure and substance of agency dissemination programs.

Departmental Manual 375 DM 4 describes the IRM planning process to be used by Bureaus within DOI and provides the common planning information to be included in all IRM plans done within the Department.

Department IRM Strategic Plan was published in October, 1992. The document has been developed to set out long-term direction toward effective information resources management and assist Bureaus and Offices in managing information for mission advantage to improve information management, employee and organizational productivity, and delivery of services to the public.

Bureau IRM Strategic Plan for 1991 through 1996 was promulgated by I.M. 92-105, January 27, 1992. This plan is updated annually. The strategy includes the long term goal of implementing a parcel based land information system concept with an incremental approach to fielding quality automated

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information systems. A basic concept of the IRM strategy is the phased or sequential development and implementation of systems tied to priorities and supported by the Department of Interior and the Office of Management and Budget. The development, integration, and implementation is guided through active management participation and supported through an institutionalized project management process. Bureauwide standards for data used by multiple programs or offices is a centerpiece of the strategy.

Additional plans and documents exist or are in preparation that provide detailed implementation procedures to achieve the goals of the Tactical Plan. These documents include:

Information Resources Management Plans (IRMP's) are to identify how Bureauwide projects and policy are implemented at the field office (State Office, District Office, and Resource Area) level. The Bureau of Land Management issued Instruction Memorandum No. 92-46, dated November 15, 1991 which provides a template to be used in the preparation of IRM plans for the offices in the Bureau. It incorporates the mandatory guidance provided by OMB and the Department and provides for consistency and continuity in IRM Planning.

Multi-Year Automated Data Processing and Telecommunications Procurement Plan (MYPP) submitted annually as an appendix to the State's Information Resources Management Plan (IRMP) identifies significant procurements planned for the current and two following years. The Service Center conducts a technical review of the items planned and the Washington Office conducts a review for policy considerations. The MYPP preparation guidance was published on November 27, 1992 (I.M. No. 93-74).

ALMRS/Modernization Implementation Plan has been drafted to provide a template and guidance for the States to use in preparing for the physical installation and maintenance of the ALMRS/Modernization system. Based on this plan each state will prepare its own implementation plan. The State plans will assist both the State Management team and the ALMRS Project Office to better prepare for a smooth transition from current systems to the new.

Annual Bureau Security Plan highlights the Bureau's implementation of the Computer Security Act of 1987. This plan identifies the major security issues the Bureau faces and details the actions the BLM has taken during the past year and plans to take in the coming year to address those issues.

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<u>Outreach Communication Plan</u> is a two part document outlining
both a short-term (2 years) and a long-term (5 years) BLM
program to make known its current IRM activities and plans to
key management agencies and others outside the Bureau. This
plan identifies objectives, methods, and techniques to
accomplish specific outreach goals.

<u>AIM/LCM manual</u> (M-1261) and Handbooks I and II provide the
high level philosophy and structure of the AIM process
including life cycle management. Handbook I explains in
detail the AIM project structure and roles and
responsibilities of those assigned to the project. Handbook
II addresses preparation of the documentation needed during
the initiation phase of a project.

<u>Automated Information Systems Security Manual and Handbook</u> (M-
1264) draft was distributed Bureauwide for comment on November
16, 1992. These documents provide the umbrella program for
Administrative, Personnel, Technical and Physical security.
The documents provide policies and guidelines, minimum
requirements, responsibilities and procedures for the
development, implementation and maintenance of an automated
information system (AIS) security program for the BLM.

<u>Continuity of Operations Handbook</u> (H-1264-1) draft was
distributed for comment on November 19, 1992. This Handbook
sets out the guidance for planning to ensure that important
automated systems can continue to function if operations at
the principal site are interrupted due to fire, prolonged loss
of power, major malfunction, etc.

<u>Risk Analysis Handbook for Analyzing RiskPac Reports</u>
(H-1264-3) has been prepared in draft and will be published in
final during FY-93. This Handbook serves as a guide for BLM
Installation Automated Information System Security Officers to
follow when conducting risk analyses at each officeusing the
RiskPac software.

<u>Systems Performance Measurement/Management Manual</u> (M-1269) was
published on October 5, 1992. This manual provides the policy
and guidance necessary for the development, implementation,
continued operation and management of a Systems Performance
Measurement/Management (SPM/M) program within the BLM.

<u>Records Administration Manual</u> (M-1270) was published on
October 21, 1992. This Manual describes the umbrella program
for the life cycle management of BLM information. Records
Administration coordinates with Data Administration, Program
Leads, Data Stewards, Records Custodians and users to develop
and implement policies, standards, and procedures that guide
BLM efforts in managing its information as a valuable
resource.

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Records Transition Manual and Handbook (H-1270-2) were published as interim guidance by Instruction Memorandum 92-340, August 28, 1992. These are extremely important documents for BLM. They describe the actions necessary to ensure that the information contained in and generated by our information systems is acceptable for use in the decision making processes that the systems are designed to support.

Data Administration Manual (M-1283) was signed on September 23, 1992. This Manual provides policies and guidelines to assure careful planning and efficient management of data created and used by the BLM.

Data Conversion Plan will be developed to describe the procedures that will be implemented to prepare the database used by each current project/system for conversion to the ALMRS system. This includes establishment of data standards, improvement of data to meet those standards, conversion of data format and importation of the data to the ALMRS system. (Unique to each project and should be a component of each project plan)

Cost Recovery Strategy for the ALMRS system was submitted to the Department for review in October, 1992. The current cost recovery fee schedule was promulgated by Instruction Memorandum No. 92-170.

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Fig. 1

BLM's "Family of Plans"

Strategic Plan

Why and What ?
- *Bureau Mission Goals/IRM Goals*
- *Long Term Direction*

Tactical Plan

How ?
- *Identification of IRM activities*
- *Coordination among activities*
- *Coordination with Budget*
- *Direction to Field Offices*

Summarize and show relation/connection between activities

AIM Projects

Support Mission Goals in Strategic Plan

Identify specific local actions and needs

IRMP

How ?
- *Local IRM planning*
- *Capacity Planning*
- *Configuration Management*
- *Support Requirements*
- *Budget*
- *Link IRM and Resource programs*
- *Prepared by All BLM Offices*

TECHNOLOGY MANAGEMENT

CHAPTER II
PROJECTS

A. Introduction

In order to ensure orderly development of automated systems and timely implementation of significant undertakings in IRM, whether automated or not, the BLM has adopted a structured project management process. Through formal initiation of projects both needs and costs are clearly identified at the outset, projects receive management approval, and resources and funding are programmed. The projects are planned and managed through their complete life cycle from initiation through development, implementation, and operations and maintenance to replacement. Clear management of projects and coordination with the budget process reduce uncertainties, result in realistic expectations, and increase the probability of success.

The use of good project management practices allows high level Bureau managers to assign relative priorities to those projects of most importance to the Bureau as a whole. For fiscal years 1993 and 1994, a major objective is to maximize the commitment of resources to ensure early implementation of the Administrative Systems component of the ALMRS/Modernization project.

The AIM/LCM Manual section 1261 and Handbooks I and II which will be published in final during the second quarter of FY-1993 are the primary source of guidance on developing and implementing AIM projects.

II - A   AIM Organization

A. Purpose

The Bureau of Land Management has instituted an organizational structure to ensure that the goals of the AIM process are met. This structure is designed to accommodate the Bureau's automation projects by providing for review and oversight throughout the project life cycle and by establishing a method whereby new projects can be introduced. AIM is an acronym used to describe information resources activities in the BLM.
  "A" stands for Automation
  "I" stands for Information Resources Management covering all
  aspects of manual and automated records
  "M" stands for Modernization, the long term plan to upgrade,
  standardize, and use the latest technology in BLM's operations

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B. Review Boards

The review councils and boards established as part of the AIM process are designed to provide essential management overview, approvals, and support during project development. BLM has five levels of review. Each AIM Project falls under the review of one of those levels. Each AIM Project is classified according to its scope. The higher the visibility of the project and the more Bureauwide its scope, the higher the level of review. See section V of this document for a list of Board membership.

C. Functions of AIM Project Review Councils and Boards

    1) To develop and coordinate the BLM's AIM policy;
    2) To ensure projects are consistent with BLM's strategic plan and mission requirements;
    3) To oversee and review ongoing AIM projects;
    4) To approve funding for new AIM Projects
    5) To ensure continued funding for approved AIM projects.
    6) To assign priorities to projects within AIM.

D. Thresholds for determining the suitable review council/board

Each of the five levels of AIM projects has a different review council/board designation. The state, Service Center, and BIFC directors or the WO ADs decide which review council/board would most suitably manage a project. A guide for determining the review council/board can be found in Manual Section 1261, Handbook I -- AIM Project Structure.

There is not a set formula or priority for managers to use in applying the criteria. The decision maker must tailor the guide to the specific environment of each unique project.
    1. Project Level I
    Definition: The highest level project, Level I, requires the oversight of the Departmental IRMRC. The main basis of this determination is a ceiling on the total cost of a project set by the Department. BLM's IRMRC is the responsible review council within the Bureau for Level I projects.
    Review Board: IRMRC

    2. Project Level II
    Definition: Generally, Level II projects are bureau wide in scope and involve multiple programs, significant funding, priority shifts, and high-level external coordination. Level II projects are also managed through the IRMRC.
    Review Board: IRMRC

    3. Project Level III
    Definition: Level III projects are managed through the PPBs. Their scope is usually limited to programs within one assistant director's responsibility. Funding normally comes

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from reallocation of funds. And a national level of
interagency cooperation is usually involved.
Review Board: Program Project Boards (PPB)

4. Project Level IV
Definition: The state, SC, and BIFC FPBs oversee projects
that affect one or more states or centers but not the whole
Bureau. These Level IV projects are normally funded through
a state's allocation and require only state or regional
interagency cooperation.
Review Board: Field Project Board (FPB)

5. Project Level V
Definition: Some projects are limited to local organizations.
These projects are small, need no more funding, and have
limited application. The state, SC, or BIFC director decides
whether to manage these Level V projects with a formal review
board.
Review Board: No Review Board required

Other Boards:
In addition to the review boards for AIM Projects, each of the
Assistant Directors maintains an AIM Team to represent the
interests of his/her program area.
    Review Board: AIM Team

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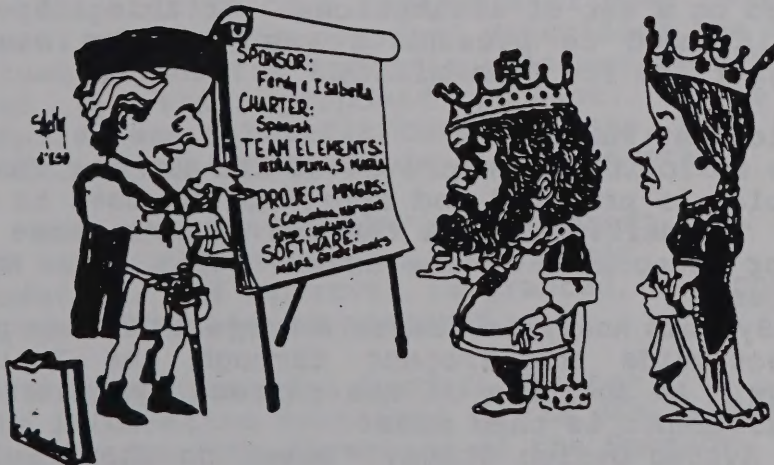
II - B   The AIM/Life Cycle Management Process

A. Introduction

The purpose of the AIM Process is to establish a method of achieving the Bureau's goals in the field of automation through the process known as "Life Cycle Management". The goal of the Bureau is to provide an efficient methodology for the migration of manual land records to automated systems.

B. Definition of Life Cycle Management

Life Cycle Management (LCM) is a structured or disciplined way for planning, managing, overseeing, and reviewing AIM Projects. It provides a process for managing an AIM Project throughout its Life Cycle, from initial concept, through analysis, design, development, implementation at the site. It also provides a mechanism for review of the progress of a project including decision to terminate or amend the project.

C. The Phases of LCM

1. Initiation Phase
The phase within which an initiative is first conceived and ending when a management decision is made on whether to proceed as a project, or to reject the initiative. This Phase consists of two distinct stages:
    a. Mission Analysis Stage in which a Statement of Need (SON) is prepared which outlines the perceived need or opportunity.
    b. Concept Development Stage in which a Project Charter is prepared which documents the goal of the AIM Project. A preliminary benefit cost analysis (B/CA) is prepared based on a set of assumptions. At this stage, the B/CA is intended to present a magnitude or scale of the project and its feasibility.

2. Development Phase
The phase following the approval of the Project Charter. The Project plan is prepared and approved and used to manage the project. The deliverable at the end of this phase is the new system for acceptance by the users. This Phase consists of four stages:
    a. Systems Analysis Stage: A Project Plan is prepared to direct/guide the Project through the Implementation stage. An analysis of the current system and the user requirements is then made.
    b. System Design Stage: Based on the results of the system analysis, alternative strategies and designs are analyzed and a recommended alternative is presented to the review council/board for approval. The review

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council/board approves and the project proceeds to system construction and acquisition.

c. System Construction and Acquisition Stage: The system is built based on the recommended alternative.

d. User Acceptance Stage: The system is tested and readied for use by the user. The user accepts the system and the implementation plan is accepted by the sponsor and approved by the council/board.

3. Operations and Maintenance Phase

This phase is the "handing over" of the system to the users and system owners.

a. Implementation Stage: System is installed and user training takes place. Sponsor turns responsibility for the system over to the System Owner for system evaluation, policy, oversight, and funding support. The System Owner is the manager of the programs supported by the AIM Project. The user representative, identified in the Project Charter and approved by the review council/board assumes responsibility for training the users of the system and assisting them in troubleshooting.

b. Maintenance Stage: System is maintained on site for the remainder of its life cycle. Once it reaches the end of its utility, a new system is proposed in a Statement of Need and cycle repeats itself for a new project.

D. LCM and the AIM Project Sequence

Life Cycle Management is used to follow the life of a project as is shown in the following sequence of steps.

Step 1: Preparation of a Statement of Need (SON).
A Statement of Need is prepared describing the current work flow situation and the specific business need that would be addressed by this proposed project. The functional requirements and a benefit/cost analysis, both tangible and intangible, of alternatives is also presented.

Step 2: Presentation of SON to Management
The SON is presented to management for review and recommendation. If approval is granted, a Sponsor is named and a Project Charter is prepared.

Step 3: Preparation of a Project Charter
Using the information contained in the SON, a Project Charter is prepared under the direction of the Sponsor. The Charter outlines the goals of the project, critical review milestones where board decisions are to be made, and identifies key project personnel. The Charter also provides any other constraints or conditions that the review council/board deems

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necessary for management of the project.

Step 4: Review Council/Board approval of the Charter
The appropriate Review Council/Board approves the Charter.
Funding sources are determined at this stage for development
of the project plan.
Note: If the project is Level V, approval of AD or SD alone
is required.

Step 5: Project Manager is Named and Prepares a Project Plan.
The Project Sponsor appoints a Project Manager who will direct
the project according to the project plan. The first duty of
the Project manager is to prepare the Project Plan.

Step 6: The Project Plan is approved by the Sponsor
The Project Plan is given to the sponsor for approval. The
Project Plan will include all milestones for the project and
the deliverables to be provided at each milestone. At least
two critical review milestones requiring Review Council/Board
approval will be included in the Project Plan. They are :
   A "Go/No go" decision at system design; and,
   A "Go/No go" decision at Implementation Plan

Step 7: The System Requirements are defined. User
System design alternatives are prepared during this stage.
These are design strategies and configurations that meet the
project goal identified in the Charter. Benefit Cost Analysis
is prepared for each alternatives and a recommended course of
action is proposed.

Step 8: The Review Council/Board Approves Design and Funding.
This is a critical milestone requiring Review Council/Board
involvement. At this stage, a "go/no go" decision must be
made on the project and funding provided if the decision is
"go". If the decision is "no go", the project is canceled at
this point.

Step 9: System is Designed and Developed. The project
proceeds into system development with user involvement in the
design and development of the system. The Project Plan
provides the guidance under which the development proceeds.
Any deviation from the Project Plan results in amendments to
the Project Plan by the Project Manager with the concurrence
of the Project Sponsor.

Step 10: Implementation Plan is Prepared. An Implementation
Plan is prepared detailing:
   1) The tasks and resources involved in implementing the
   system (i.e., site preparation, training, installation
   schedules, security);
   2) The tasks and resources involved in transfer of
   responsibilities from the Project Manager to the

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Operations and Maintenance organization and the System
Owner, who will be responsible for maintaining the system
once it is accepted;
3) The tasks and resources involved in terminating the
project (i.e., project personnel reassignments, equipment
disposition, release of space, project history reporting)

Step 11: Review Council/Board approval of Implementation Plan
Review Council approval is needed at this stage. This is
another critical milestone resulting in a "go/no go" decision.

Step 12: Implement the Implementation Plan
Project is implemented according to the Implementation Plan.
Implementation Plan is amended if needed to reflect changes in
procedures that may arise during implementation.

Step 13: System is handed over to System Owner
Project is completely implemented on site. Training is
conducted on site, user testing is conducted, and system
documentation is provided to System owner once system is
approved.

Step 14: Sponsor reports project close. Project termination
occurs in orderly fashion. Sponsor reports to the Review
Council/Board in items that must be accounted for at the
conclusion of the project:
Reassignment of people and resources;
Outstanding contractual obligations to be met
Lessons learned from the project including
recommendations for doing it better next time.

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II - C   Monitoring & Evaluation

A. Introduction

This section describes how IRM Activities, Chartered AIM Projects, and BLM Information Systems are monitored and evaluated.

1.   Monitoring: Monitoring will be conducted through the routine, systematic collection of information to keep management aware of the status of activities, projects, and systems. In BLM, monitoring is done by periodic reporting required by the various program areas. Within IRM, management regularly reviews several key reports to keep current on field office IRM planning, purchasing, implementation, operations, etc., to ensure that appropriate guidance and regulations are being followed.

2. Evaluation: Evaluation will be conducted through a formal process which carefully examines activities, projects, or systems, and compares any findings to established policy/guidelines.   Evaluations may also result in recommendations for improvement based on these established policy/guidelines. These evaluations will be conducted in a uniform fashion, using accepted methodologies, allowing legitimate comparisons to be made between similar activities, offices, etc. Evaluations also provide a feedback loop for the Washington Office, providing an opportunity to determine the effectiveness and completeness of Washington Office guidance.

B. IRM Activities

IRM activities within BLM include planning, systems development, operations, maintenance, and user support for: Telecommunications including Data transmission, Voice telephone and Radio, Records Administration and Management, Data Administration, Information Security and System Physical Security, and Automated Data Processing.

1. Monitoring of IRM Activities
In order to ensure conformance with the Bureau's Strategic and Tactical IRM Plans, the Washington Office monitors IRM Activities within the Bureau by:
　　　a. reviewing periodic reports and plans for each IRM activity,
　　　b. assisting in planning activities, at the local and State Office level, by reviewing the Information Resource Management Plans,
　　　c. reviewing implementation strategies, technological

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direction, and
d. reviewing the Multi-Year Procurement Plans to ensure programmatic review and adherence to established policy during the procurement process.

2. Evaluation of IRM Activities
The current IRMR process is under review by the Division of IRM to more objectively and effectively meet the needs of the Bureau. Under consideration are: methods of conducting reviews in a modular fashion, with only certain IRM Components of a State Office program being reviewed based on screening criteria; Bureauwide reviews of selected "themes" such as telecommunications, data sharing, or technology access, etc.; and reliance on end user surveying by the State Offices as a part of self certification of review components.

3. Scheduled Statewide IRM Reviews
a. During FY-93, the Washington Office Division of IRM will establish a formal review plan. IRM Activities will be periodically evaluated via Information Resources Management Reviews (IRMRs) convened by the Washington Office and conducted by a team composed of both Washington Office and field personnel. Often, the team leader will be a Deputy State Director for Administration. Component leaders will often be State Office IRM Branch Chiefs.
b. General Schedule
  1) IRMRs will be planned in three year cycles, with 5 offices being scoped every year.
  2) Of the 5 offices identified for that year, several will be selected for on-site reviews, pending analysis of the scoping questionnaires. These on-site reviews may cover all IRM areas (full reviews), or specific IRM areas (limited reviews).
  3) When on-site reviews are not warranted, general recommendations may be written directly from the scoping analysis. Offices will undergo a scoping process for evaluation every three years.

4. Sensitive Systems Reviews
Each year the Branch of Information Technology (WO-872) schedules and conducts a review of selected sensitive systems as required by OMB Bulletin 90-08. These reviews are scheduled in the BLM's Annual Bureau Security Plan.

5. Incidental Reviews
IRM Activities may also be evaluated as an element of other regular BLM reviews. These may be evaluations of field offices, specific program areas, chartered AIM projects, or BLM information systems. The evaluations may be AMCRs, TPRs, GMEs, or Financial Audits.

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6. Special Evaluations
IRM Activities may also be evaluated at other times by the Washington Office at the request of the Director, the AD for Management Services (AD-800), a State Director, or by oversight agencies. These evaluations will normally be IRMRs, although other types of evaluations may be used. These evaluations may be IRM program wide or involve only specific activities and/or specific locations.

C. **Reviews of Chartered AIM Projects**

1. Projects Defined
Chartered AIM Projects are those developmental projects which are currently operating under charters approved by either the Information Resources Management Review Council (IRMRC), a Program Project Board (PPB), or a Field Project Board (FPB).

2. Monitoring
Project Sponsors are encouraged to monitor the progress of their project through the IRMRC in the case of level I or II projects, the Program Project Board, in the case of level III projects, or the Field Project Board in the case of State sponsored projects. The project manager would commonly have the responsibility for providing reports as required by the sponsor or project board.

3. Evaluation
Project Managers are encouraged to request evaluations by managerial and technical professionals external to the project staff. These evaluations should be scheduled in conjunction with critical milestones in the project development and prior to implementation.

D. **BLM Information Systems.**

BLM Information Systems are considered to be those systems which are in the Operation and Maintenance phase of their life cycle.

1. Monitoring
BLM Information Systems are monitored as directed by System Owners. The IRMP and the Multi-Year Procurement Plan are useful for some aspects of project monitoring. System Owners are encouraged to institute some form of periodic performance monitoring by a designated System Manager.

2. Evaluation
BLM Information Systems will normally be evaluated by Technical Procedures Reviews (TPRs). The periodic evaluation of these systems, using established methodologies and procedures, is the responsibility of the System Owner.

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BLM Information Systems may be the subject of additional evaluations at the request of the Director, the System Owner, the AD for Management Services, or oversight agencies. These evaluations will normally be in the form of TPRs, although other types of evaluations may be used. Systems likely to be selected for additional evaluation are those of exceptionally large size or cost, or have a significant effect on the agency's business.

Schedule of Evaluations for FY-1993

Information Resources Management Reviews:

New Mexico	April 19-23, 1993
Washington Office	August 16-20, 1993
Utah	June 21-25, 1993

Sensitive System Reviews:

Indian Lease Ownership (ILO) New Mexico	April 19-23, 1993
Rio Puerco Pipeline (RPP) New Mexico	April 19-23, 1993
Cultural Permits (CP) New Mexico	April 19-23, 1993
Monthly Report of Operations (MRO) Utah	June 21-25, 1993

Alternative Management Control Reviews:

Mapping Sciences	March, 1993
Telecommunications	May, 1993

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II - D   Project Descriptions

A.   Introduction

The following describes the relationship of current activities to ALMRS/Modernization project and attainment of the stated goals/objectives. The projects chartered in the AIM process fall into one of two categories, those which substantially support the ALMRS/Modernization project and must be complete, or substantially complete, in order to enable adequate implementation of the project, and those whose completion is not a dependency for the ALMRS/Modernization project. The project summaries identify the dependencies where they exist and describe what those dependencies are.

B.   Currently Approved Projects

The following is a list of the AIM Projects that have been approved by, or coordinated through the IRMRC, as of November 17, 1992. This list includes a brief description of each project, starting and scheduled completion dates, and deliverables for each project. A GANTT chart found at the end of this section graphically portrays the major AIM/Modernization projects and the significant milestones associated with each. All local automation efforts will also follow the project management approach. The level of effort expended on formal project management efforts is to be commensurate with the cost and complexity of the projects effort. Adherence to project management techniques will help ensure achievement of the overall objectives of the BLM's AIM strategy, as outlined in the IRM Strategic Plan, and implemented through this document.

1.   Automated Lands and Minerals Record System (ALMRS)/Modernization Project

The ALMRS/Modernization Project is the Bureau's major effort to improve access to public land information through increased and improved automation of Bureau programs. The scope of the project includes the acquisition of hardware, software, and telecommunications to support three primary areas of functionality.

The *first* functional area provides improved administrative support through a modernized platform for administrative systems. This involves a Re-host of current Administrative systems to a new Unix based networked environment.

The *second* functional area is the ALMRS. The land records and availability phase will be implemented through a single hardware and COTS software procurement

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and a number of incremental software applications
releases. The first release of the land records phase
is referred to as the Initial Operating Capability
(IOC).

(a)   Concept of Operations

In order to provide specificity in guidance to the
implementation of the ALMRS project, the ALMRS Project
Office has created a draft document called the
Operations Concept Specification. The document
describes the ALMRS system by way of task analysis and
scenario development as well as systems analysis and
functional description. It serves as a translation
point between field operational and system development
personnel needs. In order to guide the development of
the final document Work Groups of field personnel in
specialty areas was established by the Project
Sponsor's Agent to assist the staff writing the IOC
specifications.

(b) IOC Specifications

The BLM is currently identifying and documenting the
requirements for the Initial Operating Capability (IOC)
of ALMRS. The specifications are being documented
based principally on two sources; the capabilities
demonstrated in the ALMRS Prototype, and capabilities
found in the current records systems. The detailed
specifications are being drafted by the ALMRS Project
Office with the extensive involvement of selected field
personnel. These detailed specifications will be
provided to the ALMRS contractor in December, 1993 for
the software coding and system development.

(c)   Additional Operating Capabilities

Additional functions for ALMRS will be identified,
documented, and developed as funding permits.

The *third* functional area is the procurement and
installation of hardware and software to enable a basic
resources capability in support of land use planning
and environmental analysis activities. The purchase of
hardware and COTS software to support this functional
area and operate as GIS decision support tools is
included in the ALMRS/Modernization request for
proposal (RFP) as an optional item to be initiated at
the BLM's discretion. Applications for this functional
area will be developed at the Field Office level.

c.   Timetable and Deliverables

(1) Timetable for ALMRS/Modernization: 11/6/90 - 7/97.
(2) Deliverables: System in place at each of the BLM
sites which will incorporate administrative and lands
and minerals title and use information appropriate to
that level of authority.

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ALMRS/Modernization dependent projects

Each of the following Information Resources Management Review
Council (IRMRC) chartered projects is designed to prepare the BLM
for modernization through data, people, hardware/software,
applications, etc. The following project listing has been
grouped accordingly, although there may be more than one of each
element supported by a single project. There are 9 projects
included within the BLM's ALMRS/Modernization Project, which fall
into four basic categories. They are:

> (1) Projects involving primarily systems **design,
> specifications, and the acquisition** of
> hardware/software and telecommunications. Specific
> projects include: Software Improvement Project (SIP);
> ALMRS Prototype; and the Modernization Project
> (including the Site Transition/Implementation Project).

> (2) Projects focusing on **data including collection,
> editing, and integration** into the modernized system.
> These projects include: Eastern States Data
> Collection/Conversion Project; Data
> Collection/Validation Project; and the Geographic
> Coordinate Data Base(GCDB).

> (3) Projects focusing on **preparation of existing data**
> for use in the ALMRS data structure. This currently
> includes the Records Release 2.0 Project.

> (4) Projects focusing on **transition issues** relating to
> the use and acceptance of the automated records. This
> project is the Records Transition Project.

1. **Projects concerning primarily design specifications &
acquisition:**

> (1) **Software Improvement Project (SIP)**
> The SIP Project will redesign and update existing software used for
> administrative purposes (payroll, procurement, collections of accounts), or for
> BLM-wide purposes not specific to land title or uses (Master Name, Bond and
> Surety System, etc.).
> *Deliverables:* providing the modernization contractor with the specifications for
> administrative systems.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
7/91	--	9/92	10/93	AD-800

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(2) ALMRS Core Prototype Project

This project developed a working prototype to demonstrate how the components of the ALMRS system will work. The results of this effort are being used to develop the specifications for the Initial Operating Capability for the lands and minerals components of the ALMRS System.

Deliverables: Prototype demonstrated certain principal land and mineral capabilities which incorporated into the ALMRS System.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
10/91	1/91	6/91	7/92	Deputy Director

2. Projects concerning primarily data collection, editing & integration:

(5). Public Land Survey System/Geographic Coordinate Data Base (PLSS/GCDB) is developing a data base of geographic coordinates representing significant points on the Public Land Survey System. It is intended to provide the spatial graphic foundation for ALMRS and provide the capability to link records data to resource data.

Deliverables: Documentation of data element relationships and attribute standards, including identification of mandatory attributes. Software Users Documentation including a program reference guide and case studies, and supplemental procedural guidance. GCDB collection software. GCDB Configuration Management Plan. GCDB Quality Assurance Plan. Data files of geographic coordinate and mandatory attributes.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/91	10/91	10/91	1/97	AD-700

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(6). ALMRS Data Collection/Validation

This project will prepare the data collection in the Legal Land Description and Status projects of the mid-1980's for integration into a single database. It will, also, be used to edit data by matching land description and acreage information from the current Status database with the same information collected in the Legal Land Description database prior to its integration.

Deliverables: Edited data for land description and status that would be ready for inclusion in the modernized ALMRS System.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
12/91	7/92	12/92	7/93	AD-200

(7). Eastern States ALMRS Status Data Collection and Conversion Project

Eastern States Status data conversion/collection includes automation and acceptance of data describing federally owned surface and mineral estate collected as a Status file in the same format and to the same standards as Status collected in the western states. The intent of this project is to establish a single source of Federal land title information to support the program goals of BLM in the East. Due to the large number of BLM administered mineral interests on other agency land in the East, efforts are being made to convert automated land title data maintained by those agencies into BLM's Status database.

Deliverables: Land title data for the Eastern 31 states in the Status database, ready for inclusion in the modernized ALMRS System.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
12/91	--	8/92	4/96	AD-600

3. Projects concerning primarily preparation of existing data:

(3) Interim Release I

This project replaced the Alaska Automated Land Records System (AALRS) previously used in Alaska. The project incorporated data standards used in the rest of the BLM for automated lands and minerals cases. Interim I is designed in a relational database system on a Prime minicomputer located in the State Office. The IRMRC approved completion of the development and implementation phases of this project on August 20, 1992. In October, 1992, the AALRS system was discontinued. The IRMRC assigned system co-ownership to the Assistant Directors for Lands and Renewable Resources, and for Energy and Mineral Resources. The IRMRC also assigned responsibility for operations and maintenance to the Service Center. These decisions were made to assure consistency with the development of the Records Release 2.0 Project. *Deliverables:* Relational system incorporating the data entered into the Alaska Automated Lands and Minerals Records system (AALRS). This system is hosted on the Prime minicomputer in the Alaska State Office.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/90	--	8/20/92	10/92	AD-200&600

(4). Record System Release 2.0

This project will provide all BLM Offices, the relational capability provided by Release I. It is being designed to facilitate the preparation of data currently contained in the Case Recordation system and the Mining Claim Recordation system for implementation of the ALMRS System.
Deliverables: This project will provide a relational system incorporating the data entered into the Case Recordation System with data entered into the Mining Claim Recordation System.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/91	1/93	7/94	1/95	AD-200&600

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4. Projects concerning primarily transition issues:

(8). Records Transition

The intent of the Records Transition Project is the development of an orderly process for transferring or migrating manual, paper, microfilm, and other non-automated records to an automated system for the ALMRS/Modernization Project. The major emphasis will be to support the changes to BLM's title records as affected by the implementation of ALMRS. This change to automated records will heavily impact BLM public room users. This project envisions the guidance for transition to a public room which utilizes automated ALMRS products as the base land record system. Because it is critical that records transition requirements are built into ALMRS, this project is also closely coordinated with the IOC Project.

Deliverables: Policy concerning legal admissibility of automated records maintained by BLM. Recommendations on public access and public room design will also be part of the deliverables.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
12/91	2/92	5/93	9/96	AD-800

(9.) Geographic Information System Data Transition Project

The purpose of this project as contained in the revised charter is to provide tools to prepare for and to manage the transition of the existing GIS database to a COTS GIS on a Unix platform. In recognition of the continuing utility of the current GIS software and hardware, it is also the intent of this project to provide tools flexible enough to support ongoing activities such as Resource Management plans and mapping as well as the transition. Project objectives include: 1) Facilitate transition of the GIS database to the COTS GIS. 2) Improve overall data quality. 3) Accommodate data and records administration policy. 4) Manage transition from existing data structure and standards to future requirements. 5) Maintain essential operations and maintenance.

Deliverables: Replace MOSS multiple attribute handling with an ORACLE-based function. Establishment of an Interagency version of the MOSS Family of software.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
12/91 r. 2/93	2/92	11/93	12/93	AD-200

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D. Non Dependent Projects for ALMRS/Modernization

The following projects are designed to support BLM missions BLM with specific capabilities that are either not included within the scope of the ALMRS/Modernization project or are intended to provide limited capabilities for the time period prior to implementation of the ALMRS/Modernization project deliverables.

1. General Land Office Records Project

This project provides BLM with the capability to scan, index, store, update, and retrieve images and attribute data for patents, tract books, and other GLO records. Historical documents are scanned and stored on optical disks. (Subcontractor has completed the automation of pre-1908 patent records for Arkansas, Louisiana, Florida, Michigan, and Minnesota. On-line retrieval, cost recovery, and outreach/partnerships are being developed.)

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/92	--	--	--	AD-200

2. Law Enforcement Network (LAWNET)

The primary objective of LAWNET is to automate the FBI's standardized report of crime (NIBRS reporting requirements). A secondary objective is to automate the BLM's incident reporting, case tracking and analysis, and intelligence recording functions.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/92	2/93	3/94	10/94	AD-RB

3. Monitoring Information Data Analysis System (MIDAS)

This project will take an existing project (WRIDS), which has been underway at Environmental Science and Technology Center (ESTC) for several years; and redirect it to reflect the AIM process. This will include involving users more directly, and working toward the modernized platform, by meeting the BLM missions need to store, analyze, and report monitoring work in relation to RMP's and Activity Plans.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
10/92	7/93	--	--	AD-200

4. Automated Fluid Minerals Supports System

This project provides for modular development of all oil and gas "operational" activities, in a rapid prototyping environment in order to develop an automated "Fluids Operating System" that: 1) uses ALMRS data, 2) includes the functions demonstrated in the Oil and Gas Post-leasing project demonstrated with the ALMRS Prototype, and 3) includes functions associated with the receipt of Sundry notices. All functions of AIRS and MRO will eventually be incorporated into the system, including on-line interfaces with the Minerals Management Service and the Bureau of Indian Affairs. The Farmington Resource Area will receive the system in FY93, and serve as the "test-bed" for implementation in the other offices. Implementation in Bakersfield, Casper, Miles City, and Roswell Districts would occur in FY94. The scope of this effort is Bureau-wide. Development and implementation of the Fluid Minerals Operations System will be conducted so as to support and compliment the Bureau's Modernization strategy.

CHARTER	Project Plan	Complete Development	Complete Implementation	Project Sponsor
10/92	TBD	TBD	TBD	AD-600

E. Projects related to Department of Interior Systems

1. Federal Personnel Payroll System

This Project will be a fully integrated; on line personnel and payroll system that will operate in a data base environment using the latest information processing technology. Overall project management is being directed by the Bureau of Reclamation. An FPPS charter will not be prepared by BLM. Individual project charters will be prepared as each module is to be made available.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
2/91	2/91	10/94	10/96	BOR-ASC

2. IDEAS

This project will constitute the BLM's involvement in developing the functional requirements for the Interior Department Electronic Acquisition System (IDEAS). This system will provide all of the Department of the Interior (including BLM) with the capability to allow program office staff to prepare requisitions and related documents to obtain needed goods and services. Hardware and other software requirements will be produced to generate and transmit requisitions, reports, and other procurement related information electronically to other BLM offices, the Interior Procurement Data System (IPDS), and the Federal Financial System (FFS).

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
8/92	--	11/92	12/95	WO-850

3. Automated Vacancy Announcement Distribution System (AVADS)

This Project will replace the current ASPEN database that maintains listings of personnel vacancies in the Bureau The State Offices decide how access to the system will be achieved in each office. Minimal costs will be incurred for each stand-alone version of the software.

Charter	Project Plan	Complete Development	Complete Implementation	Project Sponsor
	N/A	N/A	11/92	AD-700

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II - E Project Schedules

A. Introduction

The schedule for the Automated Lands and Minerals Records System (ALMRS) Modernization shows the overall timetable for the completion of each of the ALMRS sub-components or projects. The steps and dates indicated may change as the project progresses. The sequence of States is for illustrative purposes to indicate approximate timetables when installation of hardware is now scheduled to occur. The actual dates for installation at a given location is subject to an evaluation of the State's readiness to receive and use the hardware, telecommunications and software. An evaluation of each site will be made by the Modernization Project Office and the contractor to determine the exact sequence of installation.

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Fig 2

ALMRS/Modernization Project Dependencies

Fig 3

ALMRS/Modernization Pert Chart

Fig 4

ALMRS/Modernization Timeline

Fig 5

Initial Operating Capability Timeline

Fig 6

Software Improvement Project Timeline

Fig 7

Site Transition Timeline

Fig 8

Data Collection & Validation Timeline

Fig 9

GCDB Project Timeline

Fig 10

Records Transition Timeline

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ALMRS/MODERNIZATION PROJECT DEPENDENCIES

February 1993

MODERNIZATION HW/SW

Software Improvement Project

SIP Pln & Progress Rpt OMB		SIP Phase I		SIP Phase II		Install Admin Systems		Install ALMRS Hardware	
11-Jul-91	2-Dec-91	3-Dec-91	3-Mar-92	4-Mar-92	30-Dec-93	3-Jan-94	28-Jun-95	20-Dec-94	28-Aug-96

Modernization Procurement

Issue RFP		TPHC		Contract Award	
30-Apr-91	22-May-91	23-May-91	22-Jan-93	20-Apr-93	30-Apr-93

PROTOTYPE/INITIAL OP CAPABLT

Develop Prototype Modules		Demonstrate for OMB		Develop IOC Specifications		Reengineer Prototype/IOC Spec	
30-Apr-91	1-Jun-92	22-Jun-92	3-Aug-92	3-Aug-92	30-Dec-93	4-Jan-94	2-Nov-94

DATA AND RECORDS

DATA MODELING		Develop ALMRS Logical Model	
3-Jun-91	30-Apr-93	3-May-93	30-Dec-93

RECORDS TRANSITION PROJ		Resolve Legal Sufficiency		Model Public Room Design	
12-Aug-91	12-Aug-91	13-Aug-91	18-Jan-94	20-Jan-94	21-Jun-95

DATA COLLECTION/VALIDATION		Run Data Using Match-Merge		State Data Cleanup	
2-Jan-91	30-Jun-92	1-Jul-92	30-Sep-94	3-Oct-94	28-Feb-96

Complete ES Collection		Release 2 Analysis/Space		Deploy Records Release 2	
3-Jan-96	3-Jan-96	2-Nov-92	30-Mar-94	1-Apr-94	30-Mar-95

RELEASE 1 PROJECT		Release 1 Analysis/Design		Install and Accept Rel 1	
2-Jan-91	30-Sep-92	2-Jan-91	30-Sep-92	1-Oct-92	4-Feb-93

ESO STATUS PROJECT		Conversion of Non BLM Data	
10-Dec-91	10-Dec-91	10-Dec-91	30-Dec-93

Collection of BLM Data	
10-Dec-91	2-Jan-96

RELEASE 2 PROJECT	
10-Dec-91	10-Dec-91

GCDB PROJECT		Collect BLM Interests		Coord Data to ALMRS	
12-Aug-91	10-Sep-91	11-Sep-91	11-Oct-94	12-Oct-94	14-Nov-94

Collect Remaining Interests	
12-Oct-94	29-Jul-97

Final Deployment

30-Aug-98	30-Aug-98

Revised DF for Target

29-Feb-98	23-Aug-98

New Phys. Model/Standards

31-Mar-95	20-Apr-95

ALMRS MODERNIZATION PROJECT DEVELOPMENT

Task Name	Start Date	End Date
Release One	2-Jan-91	30-Sep-92
Design System	2-Jan-91	30-Dec-91
Development	2-Jan-92	30-Apr-92
Install in Alaska	1-May-92	3-Aug-92
Acceptance by Alaska	4-Aug-92	30-Sep-92
ALMRS Prototype	2-Jan-92	30-Nov-92
Develop Prototype	2-Jan-92	1-Jun-92
Demonstrate Prototype to OMB	3-Jun-92	25-Jun-92
Demonstrate Prototype in DC	1-Jul-92	31-Jul-92
OMB Accepts Prototype	3-Aug-92	30-Nov-92
Software Improvement Project	2-Jan-92	29-Dec-93
Reengineer Phase I Systems	2-Jan-92	3-Mar-92
Reengineer Phase II Systems	2-Jan-92	30-Sep-93
Deliver SIP'ed Systems to Contr	1-Oct-93	29-Dec-93
Records Release Two	1-Oct-92	31-Jan-95
Analyze Requirements	1-Oct-92	29-Jan-93
Design Release 2	1-Feb-93	28-Feb-94
Implement/Install Release 2	1-Feb-94	31-Jan-95
Data Collection/Validation Pro	2-Jan-92	30-Aug-94
Data Editing Using Match/Merge	2-Jan-92	30-Aug-94
Data Collection of Withdrawals	2-Jan-92	30-Aug-94
ES Data Collection	2-Jan-92	2-Jan-96
Develop Project Plan	2-Jan-92	31-Aug-92
Conversion of FS Data	2-Jan-92	2-Jan-96
Collection/Conversion-Non FS	1-Sep-92	2-Jan-96
GCDB Data Collection Project	2-Jan-92	31-Jan-97
Collect BLM Interests	2-Jan-92	3-Jan-96
Collect Other Interests	2-Aug-93	31-Jan-97
Modernization Implementation	31-Aug-92	27-Jun-96
Develop IOC Specifications	31-Aug-92	30-Dec-93
Install Administrative Systems	2-Aug-93	30-Dec-94
NM, WO, SC	2-Aug-93	31-Jan-94
AZ, CO, ES	1-Oct-93	31-Mar-94
CA, NV, OR	1-Feb-94	29-Jul-94
ID, UT,	2-May-94	31-Oct-94
MT, WY, AK, NFC-Boise	1-Jul-94	30-Dec-94
Install ALMRS	1-Feb-95	27-Jun-96
NM, SC, WO	1-Feb-95	31-Jul-95
AZ, UT, MT, ID, NFC,	1-Aug-95	27-Mar-96
CO, NV	31-May-95	2-Oct-95
OR, AK, CA, ES	29-Mar-96	27-Jun-96
Cutover to New System	28-Jun-96	29-Aug-96
Resources Implementation	1-Oct-96	30-Sep-02

INITIAL OPERATING CAPABILITY

Task Name	Start Date	End Date	Q4	1992 Q1	Q2	Q3	Q4	1993 Q1	Q2	Q3	Q4
INITIAL OPERATING CAPABILITY	2-Dec-91	30-Dec-93									
ALMRS Charter Approved	10 Dec 91	10-Dec 91									
Devel Documentation Spec. Stds	2-Dec-91	1-Jun-92									
Prepare Scope Document	1-Jun-92	1-Sep-92									
Approve IOC Project Plan	1-Dec-92	31-Mar-93									
System Design Document Ops Con	15 Jan 93	30 Jun 93									
Staff Recruitment	1-Jun-92	1-Feb-93									
System Development	23-Mar-92	9-Nov-92									
Redesign Existing Systems	23-Mar-92	19-Oct-92									
Review and Evaluate New Syst.	22 Apr 92	9 Nov 92									
Consolidate/Relocate Staff	2-Nov-92	16-Nov-92									
Identify Field User Groups	17-Nov-92	20-Jan-93									
SW Requirement Specifications	1-Jun-92	30-Dec-93									
Global ALMRS Specifications	1 Jun 92	30 Sep 93									
Exchanges Case Group Specs	14-Dec-92	12-Mar-93									
Locatable Mineral Case Grp Spc	18-Dec-92	12-Mar-93									
Case Groups Against Global Req	30-Sep-93	30-Dec-93									
External Systems Interface Req	1 Oct 92	30 Dec 93									

SOFTWARE IMPROVEMENT PROJECT

Task Name	Start Date	End Date	1991		1992				1993			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SOFTWARE IMPROVEMENT PROJECT	1-Nov-88	29-Oct-93										
Charter Approved	10-Dec-91	10-Dec-91										
Develop Methodology	1 Nov 88	31 Oct 89										
Systems Inventory	1-Nov-88	31-Jul-89										
Pilot System Develop	1 Sep 89	28 Feb 92										
Develop System Requirements	28-Feb-92	28-Feb-92										
System Development	23 Mar 92	30 Sep 92										
Redesign Existing Systems	23-Mar-92	30-Sep-92										
Review and Evaluate New Syst.	22 Apr 92	30 Sep 92										
System Conversion	1-Jun-92	12-Aug-93										
Convert Data Element Dictionar	1 Jun 92	22 Jan 93										
Convert Bond/Surety System	1-Jun-92	18-Mar-93										
Convert Retars	1-Jun-92	18 Mar 93										
Convert Master Name System	1-Jun-92	18-Nov-92										
Convert Directives Digest	1 Jun 92	31 Mar 93										
Convert Library Reference	1-Jun-92	29-Sep-92										
Convert Fleet Management System	1 Jun 92	1 Mar 93										
Convert Wild Horse and Burro	1-Jun-92	10-Feb-93										
Convert Material Disposal	1-Jun-92	12-Aug-93										
Work Packages to Contractor	3-May-93	29-Oct-93										

SITE TRANSITION SCHEDULE FOR ADMINISTRATIVE SYSTEMS

Task Name	Start Date	End Date	1993					1994				1995	
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
SITE TRANSITION SCHEDULE	2-Nov-92	7-Sep-95											
Reply to Facilities Questions	2-Nov-92	7-Jan-93											
Develop Site Prep. Plan	9-Dec-92	19-Jan-93											
Prepare Packages for Contractr	8-Jan-93	15-Apr-93											
Contract Award	1-Apr-93	30-Apr-93											
Facilities Preparation	9-Dec-92	5-Aug-93											
Provide Data Sheets/Flr. Plans	9-Dec-92	18-Mar-93											
Site Visits to Verify Plans	9-Dec-92	18-Mar-93											
Prepare to Install	30-Apr-93	6-Aug-93											
FIRST PHASE	6-Aug-93	13-Dec-93											
New Mexico - All Sites	6-Aug-93	13-Dec-93											
Service Center Bldgs 40 & 53	6-Aug-93	13-Dec-93											
Washington Office Main Inter	6-Aug-93	13-Dec-93											
SECOND PHASE	14-Dec-93	18-Apr-94											
Arizona - All Sites	14-Dec-93	18-Apr-94											
Colorado - All Sites	14-Dec-93	18-Apr-94											
Nevada - All Sites	14-Dec-93	18-Apr-94											
THIRD PHASE	19-Apr-94	11-Aug-94											
Montana - All Sites	19-Apr-94	11-Aug-94											
SC - Remaining Sites	19-Apr-94	11-Aug-94											
Oregon - All Sites	19-Apr-94	11-Aug-94											
FOURTH PHASE	12-Aug-94	13-Dec-94											
Utah - All Sites	12-Aug-94	13-Dec-94											
Wyoming - All Sites	12-Aug-94	13-Dec-94											
Alaska - All Sites	12-Aug-94	13-Dec-94											
FIFTH PHASE	14-Dec-94	17-Apr-95											
Idaho - All Sites	14-Dec-94	17-Apr-95											
California - All Sites	14-Dec-94	17-Apr-95											
Eastern States - All Sites	14-Dec-94	17-Apr-95											
BIFC - All Sites	14-Dec-94	17-Apr-95											
Final Transition Retire Old	18-Apr-95	7-Sep-95											

SOURCE: Instruction Memorandum SC-92-096, 17-April-1992

Updated Information Based on April Contract Award.

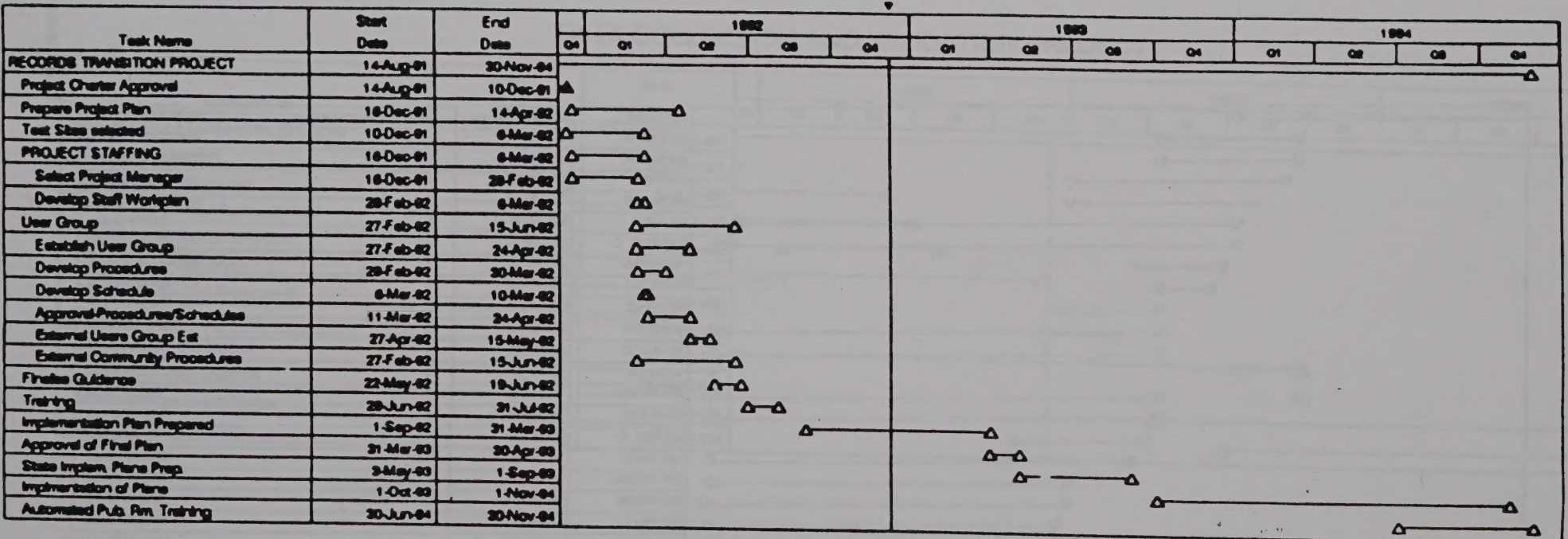Schedule of Offices May Change Based On Site Survey Results

DATA COLLECTION AND VALIDATION PROJECT

Task Name	Start Date	End Date	1992					1993				1994		
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
ALMRS COLLECTION/VALIDATION	4-Nov-91	30-Sep-94												
Charter Approved	10-Dec-91	10-Dec-91	●											
Status Coll Completed	4-Nov-91	1-Jun-92			▲									
Match-Merge SW Release 7.0	10-Dec-91	1-Jul-92	▲		▲									
Site Visit/Workload Analysis	31-Jan-92	3-Aug-92		▲		▲								
Project Mgr. Selection	31-Dec-91	30-Nov-92	△				△							
Match Merge SW Release 8	4-Jan-93	1-Feb-93						△-△						
Project Plan Completed	1-Dec-92	26-Feb-93						△	△					
Collect Wdls- All States	10-Dec-91	30-Sep-93	△								△			
DPS-8 Contract Expires	30-Sep-93	30-Sep-93								△				
Match-Merge LLD&Status	14-Apr-93	30-Sep-94							△					
CRS-MCRS Validation	1-Jul-93	30-Sep-94								△				

GEOGRAPHIC COORDINATE DATA BASE

Task Name	Start Date	End Date	1991		1992				1993				1994				1995				1996			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GEOGRAPHIC COORD DATA BASE	14-Jun-91	31-Jan-97																						
Charter Approved	29-Jul-91	29-Jul-91																						
AZ,CA,MT,UT Contracts	14-Jun-91	14-Jun-91																						
Id. ES Issues	1-Jul-91	1-Jul-91																						
AZ Contract Begins	16-Jul-91	16-Jul-91																						
UT, MT Contract Begins	29-Jul-91	29-Jul-91																						
CA Contract Begins	12-Aug-91	12-Aug-91																						
Proj Plan Rev -FMFIC	30-Oct-91	30-Oct-91																						
Analyses of ESO Coil Needs	30-Oct-91	31-Oct-91																						
Annual Reviews - State by Stat	30-Oct-91	31-Jan-97																						
Develop Action Plan for ES	30-Oct-91	30-Jun-92																						
Approve ES Action Plan	1-Jul-92	1-Sep-92																						
OR BLM SMA	29-Jul-91	29-Jul-93																						
UT BLM SMA	29-Jul-91	1-Nov-93																						
AZ BLM SMA	16-Jul-91	30-Nov-93																						
NM BLM SMA	29-Jul-91	30-Nov-93																						
WY BLM SMA	29-Jul-91	2-May-94																						
OR Other Interests	29-Jul-93	31-May-94																						
MT BLM SMA	29-Jul-91	30-Jun-94																						
ID BLM SMA	29-Jul-91	30-Jun-94																						
ID Other Interests	29-Jul-91	29-Jul-91																						
CO BLM SMA	29-Jul-91	30-Jun-94																						
NV BLM SMA	29-Jul-91	30-Jun-94																						
UT Other Interests	1-Nov-93	30-Jun-94																						
CO Other Interests	30-Jun-94	31-Oct-94																						
WY Other Interests	2-May-94	30-Nov-94																						
CA BLM SMA	12-Aug-91	3-Jan-95																						
AK BLM SMA	29-Jul-91	3-Jan-95																						
NM Other Interests	30-Nov-93	28-Feb-95																						
AZ Other Interests	30-Nov-93	1-May-95																						
NV Other Interests	30-Jun-94	31-May-95																						
MT Other Interests	30-Jun-94	31-May-95																						
CA Other Interests	3-Jan-95	31-Jan-97																						

RECORD TRANSITION PROJECT

Task Name	Start Date	End Date	1992					1993				1994			
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
RECORDS TRANSITION PROJECT	14-Aug-91	30-Nov-94													
Project Charter Approval	14-Aug-91	10-Dec-91													
Prepare Project Plan	16-Dec-91	14-Apr-92													
Test Sites selected	10-Dec-91	6-Mar-92													
PROJECT STAFFING	16-Dec-91	6-Mar-92													
Select Project Manager	16-Dec-91	28-Feb-92													
Develop Staff Workplan	28-Feb-92	6-Mar-92													
User Group	27-Feb-92	15-Jun-92													
Establish User Group	27-Feb-92	24-Apr-92													
Develop Procedures	28-Feb-92	30-Mar-92													
Develop Schedule	6-Mar-92	10-Mar-92													
Approved-Procedures/Schedules	11-Mar-92	24-Apr-92													
External Users Group Est	27-Apr-92	15-May-92													
External Community Procedures	27-Feb-92	15-Jun-92													
Finalize Guidance	22-May-92	19-Jun-92													
Training	29-Jun-92	31-Jul-92													
Implementation Plan Prepared	1-Sep-92	31-Mar-93													
Approved of Final Plan	31-Mar-93	30-Apr-93													
State Implem Plans Prep	3-May-93	1-Sep-93													
Implementation of Plans	1-Oct-93	1-Nov-94													
Automated Pub Rm Training	30-Jun-94	30-Nov-94													

CHAPTER III
RECORDS AND DATA

III - A   Data Administration

A. Introduction

The proper maintenance and use of BLM's data is central to our automation efforts and acceptance of our electronic records as official, legally admissible records. The BLM's data administration program is being implemented by WO Data Administrators, assisted by State and Service Center Data Administrators. who will guide and facilitate program specialists in standards development and data stewardship. Data requirements are being defined through an analytical method known as structured analysis.

B. Definition

The BLM has outlined the overall approach to our data administration effort by defining it as the function of managing BLM data resources as an asset. This includes directing or coordinating all activities and implementing policy and procedures related to strategic data planning, data standards, data security, data documentation, data sharing, data exchange, and developing plans and training to meet BLM's current and future information needs.

C. Data Management Activities

Major data management activities the BLM is presently undertaking include developing and executing a strategy for the collection, preparation, and the transition of data files into the form needed for successful implementation of the ALMRS system.

D. Data Preparation Tasks

Tasks required to ensure data sharing, exchange, integration and interface of system functions and capabilities in the Modernized environment include:
  ► Data Dictionary Transition
  ► Corporate Data Standards
  ► Data Preparation
  ► Data Conversion and System Implementation
  ► Data Modeling driven by project needs

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E. Corporate Data Standards

Effective management of data to obtain maximum benefit requires that data be available to a wide variety of staff and must carry the same names, definitions, and values for each user. Therefore, the BLM's data resources must be standardized. This will ensure common understanding of meanings by all users and it will allow data to be easily combined and transmitted between offices in a consistent format.

Data standards are reviewed and recommended for approval by the Assistant Director's Data Administrators, with concurrence by the Bureau Data Administrator and are approved by BLM program leaders. Program staff are responsible for maintaining BLM's data standards. Other agencies' standards may be adopted by the BLM and approved as BLM standards using the same process that is in place for BLM initiated data standards. Field offices are notified through formal directives of the establishment of, and changes to, approved standards.

1. ALMRS/Modernization Records Data Standards

The BLM is evolving data standards for its current corporate land and mineral records data to update and incorporate the standards now in place for the following records systems, which are to be incorporated into the ALMRS Modernization Project:

1. Case Recordation
2. ORCA
3. Mining Claim Recordation
4. GCDB

5. Master Name
6. Bond and Surety
7. Status
8. Administrative Systems data
9. Record System Release I

State Offices conducted a designed random sampling of the Case Recordation and Mining Claim Recordation data bases in Fiscal Years (FY) 1990, 1991 and 1992. The State Data Quality Assurance Plans written in late FY 1992 describe the actions the States will take to improve the quality of the these data bases to established BLM Acceptable Quality Levels (AQL). The AQL for all ALMRS data is documented in the 1283 - Data Administration Manual Section.

2. Resources Data Standards

Resources data standards have been developed by data set teams which included resource experts at the field level. A total of 29 data set teams were established by the BLM to complete work relating to establishing standards for all Corporate Resources Data. Data set teams were established to set standards for the following areas:

Fluid Minerals Mgt.
Locatable Minerals
Geologic Formations
Lands Resources Mgt.

Solid Leasable Minerals
Mineral Materials
Minerals Resources Inventory
Forest Management

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Rangeland Management	Cultural Resource Mgt.
Wilderness Resources Mgt.	Visual Resources Mgt.
Recreation Resources Mgt.	Paleontological Resource Mgt.
Cave Resources	Soils
Water Resources	Watershed Resources Mgt.
Air Resources	Hazardous Materials
Animals	Wildlife Resources
Vegetation	Land Use Planning
Wild Horse and Burro Mgt.	Physical Facilities
Socio-Economic	Aviation Management
Fire Management	

Data Set Team Milestones:

1988	Data Set Categories Defined *[Completed]*
	Data Sets Assigned to States *[Completed]*
1989	Training of Teams *[Completed]*
	Data Element Name, Definition, Standards, and Codes *[Completed]*
1992	Bureauwide Review of Draft Reports *[90 % Completed]*
1993	Final Approval of Reports by WO Programs
	Application of Standard Naming Convention
	Assignment of Program Office Responsibility
	Review for Redundancy and Consistency
	Reconcile Definitions for Redundant Data Elements
1994	Compile Final Dictionary Report
	Final Review by Program Staff
	Implementation of Data Standards
	Data Modeling for Resources Option
1994-5	Interagency Review (FGDC)

3. Geographic Sciences Data

The geographic sciences tools provide managers and other users with locations, text and spatial relationships of land boundaries, land status and resources. The BLM has the lead responsibility for establishing the standards for Public Land Survey Geographic Coordinate data and land tenure records. A draft policy statement on spatial data management for the BLM was distributed for comment on November 17, 1992 (Information Bulletin No. 93-89). A final policy document will be issued in FY-93.

The Department has prepared a Secretarial Order regarding the coordination of Interior surveying, mapping, and related spatial data activities. The Order will specifies the responsibility and activities of the Interior Geographic Data Committee (IGDC); adopt the Mapping/Geographic Information Systems (GIS) Implementation Plan prepared by the IGDC (dated October 23, 1992), and identifies the principal activities to be carried out under the plan.

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Each year the BLM purchases areal photography data through a contract administered by the USGS. In FY-93, the Washington Office transferred $250,000 to USGS for BLM procurements under the contract.

F. Data Preparation

A significant workload for the BLM is preparing the data for loading into the re-hosted Administrative and ALMRS systems. The initial data to be loaded resides in five different databases: Legal Land Description (LLD), Status, Case Recordation System (CRS), Mining Claim Recordation System (MCRS), and Records Release I. LLD and Status standards are published in the LLD and the Status Handbooks. The remaining systems, which contain case related information, have data standards developed by the program offices. Those standards were not finalized until after data had been entered into these systems. Data preparation includes verification of collected data against current BLM standards, development of conversion requirements, certification of an acceptable level of data accuracy and identification of data dictionary requirements.

1. Data Transition Strategy

The BLM is challenged with identifying and carrying out procedures for transferring the data contained in the current databases into the database structure necessary to operate the new re-hosted administrative systems and the ALMRS system. In order to do this, key actions have been implemented and are underway.

► BLM has defined acceptable quality levels for current data files, i.e., Status, LLD, Case Recordation, Mining Claim Recordation, Master Name, etc.
Dates: 9/23/92 [Completed] Data Administration Manual (M-1283)

► Quality Assurance (QA) guidance has been provided to State Offices, including formats for State Data QA plans.
Dates: 9/23/92 [Completed] Data Administration Manual (M-1283)

► Accountability has been established for data preparation.
Dates: 5/20/90 - 6/1/90 [Completed]

► Implementation of BLM program data standards has begun. Revised standards being developed are guided by Records Release 2 and ALMRS Initial Operating Capability (IOC) requirements.
Dates: 12/1/89 - 12/31/93 [Ongoing]

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► Sampling plans and techniques, and data maintenance procedures for all ALMRS related files are being developed.
Dates: 4/1/90 - 9/30/94

      o CRS and MCRS *[Ongoing]*
      o Release 1 (Alaska) *[3/31/93]*
      o LLD and Status *[3/31/93]*
      o GCDB *[3/31/93]*
      o IOC Specifications Project *[12/93]*
      o Records Release 2 *[3/31/93]*

► Define and document existing data quality on a State-by-State basis.
Dates: 5/5/90 - 9/30/94 [Ongoing]

► Development of a dictionary transition strategy has begun to provide for implementation of a dictionary for the re-hosted Administrative systems and the ALMRS system. The RFP requires the winning contractor to provide a dictionary software that is interactive with the relational database management system to be used in ALMRS.
Dates: 10/92 - 5/93 [Ongoing]

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DATA VALIDATION SCHEDULE BY STATE OFFICE

Task Name	Start Date	End Date
DATA PREPARATION	23-Jun-92	1-Apr-96
Contract Award	18-Dec-92	18-Dec-92
NEW MEXICO	23-Jun-92	16-Jun-94
Validate LLD/Status	23-Jun-92	1-Jul-93
Install Records Release 2	2-Aug-93	29-Oct-93
Validate CRS MCRS Data	23-Jun-92	1-Mar-94
Install ALMRS	1-Apr-94	16-Jun-94
ARIZONA	23-Jun-92	28-Feb-95
Validate LLD/Status	23-Jun-92	1-Oct-93
Install Records Release 2	1-Nov-93	31-Jan-94
Validate CRS MCRS Data	23-Jun-92	3-Oct-94
Install ALMRS	1-Nov-94	28-Feb-95
COLORADO	23-Jun-92	30-Jun-95
Validate CRS MCRS Data	23-Jun-92	4-Oct-93
Install Records Release 2	1-Nov-93	31-Jan-94
Validate CRS/MCRS	23-Jun-92	31-Mar-95
Install ALMRS	1-May-95	30-Jun-95
NEVADA	23-Jun-92	21-Jun-95
Validate LLD/Status	23-Jun-92	1-Oct-93
Install Records Release 2	1-Nov-93	31-Jan-94
Validate CRS MCRS Data	23-Jun-92	3-Oct-94
Install ALMRS	1-Mar-95	21-Jun-95
OREGON	23-Jun-92	29-Jan-96
Validate LLD/Status	23-Jun-92	1-Mar-94
Install Records Release 2	1-Apr-94	30-Jun-94
Validate CRS MCRS Data	23-Jun-92	31-Aug-95
Install ALMRS	2-Oct-95	29-Jan-96
MONTANA	23-Jun-92	3-Apr-95
Validate LLD/Status	23-Jun-92	1-Mar-94
Install Records Release 2	1-Apr-94	30-Jun-94
Validate CRS MCRS Data	23-Jun-92	30-Nov-94
Install ALMRS	3-Jan-95	3-Apr-95
UTAH	23-Jun-92	1-Feb-95
Validate LLD/Status	23-Jun-92	31-May-94
Install Records Release 2	1-Jul-94	31-Oct-94
Validate CRS MCRS Data	23-Jun-92	28-Nov-94

Year/quarter columns: 1992 (Q3, Q4), 1993 (Q1–Q4), 1994 (Q1–Q4), 1995 (Q1–Q4), 1996 (Q1, Q2)

Ten... Schedule as of June 23, 1992

DATA VALIDATION SCHEDULE BY STATE OFFICE

Task Name	Start Date	End Date	1992		1993				1994				1995				1996	
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Install ALMAS	1-Dec-94	1-Feb-95										△—△						
WYOMING	23-Jun-92	31-May-95												△				
Validate LLD/Status	23-Jun-92	31-May-94								△								
Install Records Release 2	1-Jul-94	31-Oct-94								△—	—△							
Validate CRS MCRS Data	23-Jun-92	28-Feb-95										△						
Install ALMAS	3-Apr-95	31-May-95											△—△					
ALASKA	23-Jun-92	1-Feb-96															△	
Validate LLD/Status	23-Jun-92	31-May-94								△								
Install Records Release 2	1-Jul-94	31-Oct-94								△—	—△							
Validate CRS MCRS Data	23-Jun-92	30-Oct-95														△		
Install ALMAS	1-Dec-95	1-Feb-96															△—△	
BIFC	3-Oct-94	31-Aug-95								△————				—△				
Install Records Release 2	3-Oct-94	29-Dec-94								△—△								
Install ALMAS	3-Apr-95	31-Aug-95											△——	—△				
IDAHO	23-Jun-92	31-May-95										△						
Validate LLD/Status	23-Jun-92	31-Aug-94									△							
Install Records Release 2	3-Oct-94	29-Dec-94								△—△								
Validate CRS MCRS Data	23-Jun-92	31-Jan-94							△									
Install ALMAS	1-Mar-95	31-May-95											△——△					
CALIFORNIA	23-Jun-92	2-Jan-96															△	
Validate LLD/Status	23-Jun-92	31-Aug-94									△							
Install Records Release 2	3-Oct-94	29-Dec-94									△—△							
Validate CRS MCRS Data	23-Jun-92	2-Oct-95														△		
Install ALMAS	2-Nov-95	2-Jan-96															△—△	
EASTERN STATES	23-Jun-92	1-Apr-96																△
Validate LLD/Status	23-Jun-92	31-Aug-94									△							
Install Records Release 2	3-Oct-94	28-Dec-94									△—△							
Validate CRS MCRS Data	23-Jun-92	1-Dec-95															△	
Install ALMAS	3-Jan-96	1-Apr-96															△—	—△

Tentative Schedule as of June 23, 1992

G. Data Sharing

The OMB has directed that when planning, designing and carrying out information collections, agencies should systemically consider what effect their activities will have on cities, counties, and States. This direction means taking steps to involve other agencies to ensure that information collections impose the minimum burden and do not duplicate or conflict with local efforts and other Federal agency requirements or mandates. The goal is to have Federal agencies routinely integrate State and local government concerns into Federal information resources management practices. In furtherance of that goal, the BLM currently participates with the National Association of Counties (NACo). New Mexico is participating with McKinley County in a pilot project to explore the operation of sharing of electronic data, providing the county with access to the BLM's system. The New Mexico State Office has entered into an MOU with the county to guide and facilitate this project. The Oregon State Office is a leader and member of the Northwest Land Information System group of local, State and Federal agencies working together to collect, share and exchange data.

It is BLM policy to:
► Pursue data sharing agreements with other agencies (including state and local governments), interest groups, and companies to minimize duplication of effort. Sharing agreements are reviewed by the Washington Office Branch of Data, Records and Mapping Sciences.

► Limit initial public on-line access exclusively to the public rooms, except for the purpose of gaining prototype experience, until ALMRS is implemented successfully and system sizing issues have been resolved.

H. Enterprise Model

The BLM Enterprise Model (EM) is a model of BLM information and processes used throughout every mission and support program. The Enterprise Model is essentially BLM's Mid-Level Process/Data Class Analysis, prepared in 1990, that was built on the original Enterprise Data Model (EDM). The Mid-Level diagramed and documented further details of how BLM uses information to carry out its day-to-day responsibilities. The Model describes and defines 19 classes of information and 26 functions. Each of the classes is further subdivided into entities and attributes. The relationships between the entities in each data class are diagrammed.

The EM should be used by Data Administrators at the Charter development stage to provide information about how the overall intentions and limits of AIM project proposal fit into, and are consistent with, BLM business practices.

The Enterprise Model was transmitted to the field offices September, 1992, for use and evaluation. Program managers are responsible for maintaining and updating the analyses to ensure they reflect changes in user requirements or program direction. As

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Data Administrators use the EM, they should provide information to the Bureau's Data Administrator about its accuracy and utility. Based on this feedback, the WO will consider appropriate revisions to the Model. This information will be transmitted to the Data Administrators as updates to the EM.

I. LOGICAL DATA MODELING

Logical data modeling in the BLM is performed only in support of specific projects. In FY-93 the data included in the Initial Operating Capability (IOC) specification will be modeled at the Service Center for the ALMRS/Modernization Project. All other low-level modeling has been postponed until completion of the IOC effort. When resources become available, modeling efforts will be directed toward additional projects.

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III - B   Records Administration

A.   Introduction

The move from a manual to an electronic record keeping environment will produce significant changes in both the BLM data and records. The development of a planned approach for moving some of the BLM's processes into an automated environment will allow for resolution of problems prior to the installation of the ALMRS/Modernization. Identified efforts involved in Records Administration will include transition planning to manage BLM records and data.

Specific tasks identified to reach our goals of an efficient and effective electronic record keeping environment have been incorporated into the Records Transition Project described below:

Records Transition Project
The Records Transition Project outlines how the BLM plans to move from the current manual records environment to one in which many of the records are automated. This effort also includes resolving problems related to the adequacy of documentation, legal record keeping requirements, retention and disposition requirements for current, interim, and new records, and compliance with Federal records access laws. Other issues include disposition of records being replaced by the ALMRS/Modernization; development of retention and disposition schedules; and ensuring adequate audit trails to guarantee the integrity of the information in the ALMRS/Modernization. Completion of this project includes development of an implementation plan and providing assistance to State Offices for implementation. The Records Transition Project also includes tasks related to implementation of ALMRS in BLM public rooms. This includes training, staffing, and effects on public rooms. Completion of these tasks require close coordination with the IOC and the Concepts of Operation Steering Committee. An action plan will be developed in Fiscal Year 1993 to conduct and automated records inventory as a component of this project.

   Dates: 1/92 - 1/96

CHAPTER IV
PLATFORM & BUSINESS PROCESS

IV - A   ALMRS/Modernization

Preparation

The Service Center, in consort with State Office IRM personnel, have prepared an Implementation Plan for the Administrative component of the ALMRS/Modernization Project. Using this guidance, each State is to complete, in FY-1993, a State Implementation Plan that will detail necessary prepartions to be made in advance and support of receipt of the Administrative platform to be installed.

Modernization

The first implementation of the ALMRS/Modernization contract is the procurement and installation of the hardware and COTS software necessary to enable the current administrative systems to be re-hosted from the current Honeywell minicomputers to a Unix based environment running a relational database system. Included in this phase is acquisition of local area networks to support the administrative functions.

ALMRS

The ALMRS system will be implemented in two distinct procurement phases characterized by their function. The first phase to be implemented includes procurement and installation of hardware, COTS software, and contractor coded applications software to perform functions relating to land records and availability of lands for permitted uses. Like the Administrative modernization component, the ALMRS procurement will operate in a UNIX environment and run a relational database system. Sufficient graphics display capability will be included in this phase to allow spatial portrayal of land and case status data. The second ALMRS phase is referred to as the Resources Option and includes an option to procure hardware and COTS software to support functions related to occurrences of both renewable and non-renewable resources. Much of the data necessary to support the first phase has been collected. A Concerted data collection project to support the Resources Option phase has not been scoped and the procurements for this phase is not yet funded. Applications to implement the resources functions will be developed at the Field Office level. The land records and availability phase will be implemented through a single hardware and COTS software procurement and a number of incremental software releases. The first release of the land records phase is referred to as the Initial Operating Capability (IOC).

IV - B   Procurement Strategy

The Bureau of Land Management (BLM) is committed to achieving a parcel based land information system and modernizing its administrative and technical services systems in order to enhance mission performance and improve customer service. BLM has adopted a structured management approach to the acquisition of all major IRM hardware, software, and telecommunications to provide for more rapid delivery of useable products. That approach involves the following strategy for acquisition of:

1. Hardware, Software, and Telecommunications to support the Bureau's Administrative systems as part of the ALMRS Modernization contract;

2. A modern parcel-based Automated Lands and Minerals Record System (ALMRS), which will replace the current manual (paper) record system, to facilitate BLM's land and mineral case processing and provide the BLM publics with more accurate and up to date information. This acquisition will be accomplished through the competitive process under the ALMRS Modernization contract.

3. Additional capability to support mission-specific requirements by means of a structured procurement strategy based on a multi-year planning and approval process tied to agency-wide Information Resource Management Plans.

In order to: 1) ensure BLM-wide system continuity; 2) minimize procurement of additional equipment that may be made obsolete by the ALMRS/Modernization system; and 3) prevent erosion of the ALMRS/Modernization sales base resulting from numerous separate procurements prior to award, a policy restricting ADP purchases prior to contract award was established by Instruction Memorandum No. 91-432.

The ALMRS Modernization Contract

1. In May 1991, the BLM issued a Request for Proposal (RFP) for modernizing its existing administrative systems and automating the remainder of its land and mineral records. The period for submitting proposals closed in December, 1991. The proposals are currently being evaluated and contract award is scheduled for April, 1993. The following types of applications are covered under this RFP:

a. Administrative Systems involving program management, property, inventory management, planning, and forecasting. Included are functions relating to budgeting, payroll, personnel management, and information resources management;

b. Land and Mineral Management including activities relating to processing of title transfers, rights-of-way, leases and permits, and miming claims and mineral disposal. This includes maintenance of land transactions and ownership records and public access to those records.

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c. An option to extend the contract to include procurement of hardware and COTS software that will enable the field to generate a resources capabilty in support of the BLM's land use planning and environmental analysis. This option is subject to review and will not be exercised until the administrative and lands and minerals management functions have been modernized.

d. Telecommunications linkage for the modernized systems installed under the RFP.

2. Sites affected. Procurements under the ALMRS RFP covers all Bureau offices including Headquarters, State Offices, BIFC, District Offices, Resources Areas, and Special Project Offices.

3. Timetable. The ALMRS strategy envisioned a six year timetable to acquire and install the needed components. Budgetary constraints may extend the length of time needed to complete the installation at all sites.

4. Scope limitations. The ALMRS Modernization project does not include those systems that are outside of the scope of the RFP for re-hosting (e.g., technical systems for fire management, Cadastral survey, and engineering systems). Also not included are those automation systems needed to provide support between now and the time modernization is implemented at all sites. State Office Information Resource Management Plans are to identify those systems in place at all sites within the State.

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IV - C   Planning/Budget Process

A. Introduction

All IRM activities require commitment of resources requiring funding. It is essential, therefore, to plan for those activities and incorporate them into the budget process. The planning process for the Bureau is guided by the Departmental Manual 375 DM 4. The policies and direction of the Bureau's plans conform to the DOI's Strategic plan. Likewise, the content of the State IRM plans are guided by a current Instruction Memorandum which will be incorporated into the BLM's Manual system. The policies and direction for the State plans is contained in the BLM's IRM Strategic Plan and this IRM Tactical Plan as well as current directives on State IRM Plan preparation.

It is important that, in addition to providing the basis for funding justification, plans be in place to:

1. Provide a statement of goals and objectives for individual offices and provide a mechanism for coordination within a state/local office to further achieve efficiencies through automation.

2. Provide WO program staff with information about IRM activities within their program area for use in preparing budget planning documents.

3. Serve as the basis for Capacity Planning and Configuration Management

4. Identify and document IRM Technical Support Requirements

5. Provide the data needed for the Bureau to meet the reporting requirements of central management agencies for strategic planning such as OMB Circular A-11; Exhibits 43A and 43B; and 375 DM 4 (Multi-Year Procurement Plan).

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B. The Planning Process

The attached GANNT Chart shows the approximate time period within which IRM planning documents and budget submissions are to be prepared. IRM planning documents include the State or office wide IRM Plans as well as the Multi-Year Procurement Plans (MYPP) for Hardware, Software and Telecommunications for which higher level authorization is needed.

1. Information Resources Management Plan (IRMP)
    a. Purpose: The Paperwork Reduction Act (44 USC 3506(c)(8)) requires each agency to develop annual plans for meeting the agency's information technology needs. The Office of Management and Budget (OMB) further requires agencies to establish multi-year plans for acquiring and operating information technology to support program and mission needs and to document agency budget requests. The Department of Interior published 375 DM 4 which describes the IRM planning process and provides the common planning information to be included in all IRM plans done within the Department.

    b. Contents of the IRMP: The IRMP is the principal planning document for IRM activities in the field. It identifies the role of IRM in supporting the mission requirements of BLM. The Bureau of Land Management issued Instruction Memorandum No. 92-46, dated November 15, 1991 which provides a template to be used in the preparation of IRM plans for the offices in the Bureau. It incorporates the mandatory guidance provided by OMB and the Department and provides for consistency and continuity in IRM Planning. A revision to the IRM Plan guidance was issued in January 1993 as IM No. 92-46 Change 1, as a result of a review of the State plans submitted during FY 1992. The IRM Plans are used to guide the State's overall IRM strategy, will assist the budget planning process, and will be referenced prior to approving budget requests and procurement requests under the Multi-Year Procurement Plan process.

    c. Timing: The IRMPs are due by March 31 of the first year covered in the IRMP (e.g. The IRMP covering planning years FY 1993, 1994, 1995, and 1996, are due to WO by March 31, 1993). This plan preparation process coincides with the preparation of the Program Year Budget Plan. Both documents are forward looking in scope and their preparation should be closely coordinated. Preparation at this time is also useful so the document can form the basis for elements of the coming year's Annual Work Plan.

    d. Reporting: Data submitted in the IRMP assists creation of reports required by Office of Management and Budget (OMB) Circular A-11 (43-

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A&B) including data on acquisition, operation, and use of information technology systems are collected for oversight of the acquisition and use of automated data processing, telecommunications, and other information technology to manage information resources as required by the Paperwork Reduction Act of 1990: Portions of these data are also used for analysis in support of the Chief Financial Officers Act of 1990.

2. **Multi-Year Automated Data Processing and Telecommunications Procurement Plan (MYPP)** submitted annually as an appendix to the State's Information Resources Management Plan (IRMP) identifies significant procurements planned for the current and two following years. The Service Center conducts a technical review of the items planned and the Washington Office conducts a review for policy considerations.

a. Purpose: To ensure that those who are charged with responsibility for the AIM program are planning for acquisitions in a thoughtful and logical manner. The development of a well prepared MYPP will allow for an appropriate amount of fiscal oversight, thereby helping to ensure that management can plan for spending in line with budget expectations.

b. Contents of the MYPP: The MYPP is prepared for all Federal Information Processing (FIP) procurements. The outline for completing the MYPP is included in Instruction Memorandum Number 93-74, dated 27 November 1992.

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B. The Budget Process

The Bureau's budget process is designed to obtain necessary funding and distribute those funds to effectively to carry out its responsibilities and accomplish program objectives. The BLM's budget is prepared and implemented in a cycle which takes approximately 3 years from preparation of initial estimated budget requirements through implementation of the Bureau's AWP and Operating Budget. The budget process is broken into two major phases Budget Development and Budget Execution.

1. **Budget Development Phase**: includes all formal processes involved in obtaining an appropriation for the BLM. It is the preparation and presentation of funding requests for the Bureau's programs to the Department, OMB, and Congress covering 2 years. The Program Year Budget Plan (PYBP) is the only part of the budget development phase that is totally internal to BLM.

    a. The purpose of the PYBP is to prepare for the Director the proposed budget for the BLM based on the consolidation of State Directors' identified issues and priorities. The proposed budget is submitted through the Department of Interior to the Office of Management and Budget (OMB) where it is included in the Presidents proposed budget to Congress.

2. **Budget Execution Phase**: This is the implementation of the Bureau programs that were included and justified in the president's budget and approved by congress in the annual appropriations act. This phase includes all steps in planning, preparing, executing, and monitoring the current year operating budget.

    a. The Proposed Annual Work Plan (PAWP) provides the field offices with tentative guidance on cost targets, program priorities, expected accomplishments and new administrative and operating procedures.

    b. The Annual Work Plan (AWP) provides the field offices with final guidance on cost targets, program priorities, expected accomplishments and new administrative and operating procedures.

    c. The Operating Budget (OB) is the approved AWP placed into the Bureau's Financial Management System.

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BUDGET AND PLANNING CYCLE

Task Name	Start Date	End Date	1992 Q4	1993 Q1	1993 Q2	1993 Q3	1993 Q4	1994 Q1	1994 Q2	1994 Q3	1994 Q4
PLANNING AND ANALYSIS	1 Oct 92	30 Sep 93					△				
Revised Tactical Plan Prepared	1 Oct 92	30 Mar 93		△							
Prepare PYBP for Outyears	1-Oct-92	31-Mar-93		△							
Prepare IRMP-Current & Outyear	1-Oct-92	31-Mar-93		△							
Prepare MYPP for Outyears	1-Oct-92	31-Mar-93		△							
Tactical Plan Issued	31-Mar-93	31-Mar-93		△							
HQ Reviews MYPP, IRMP, PYBP	17-May-93	1-Jun-93			△△						
Update Tactical Plan	30-Sep-93	30-Sep-93					∧				
PROCUREMENT	2-Jun-93	8-Jul-93			∧—∧						
Feedback on Outyear MYPP	2-Jun-93	15-Jun-93			∧∧						
Approved MYPP to DOI	8 Jul 93	8 Jul 93				∧					
CURRENT YEAR BUDGET	13 Jul 93	19 Nov 93				△ - - - △					
Issue Directives to States	13 Jul 93	21 Jul 93				△△					
States Submit PAWP to HQ	22 Jul 93	24 Aug 93				△ △					
HQ Review PAWP	25 Aug 93	22 Sep 93				△ △					
AWP Submitted from States	23-Sep-93	21-Oct-93					△△				
Budget Recommendations	22-Oct-93	19-Nov-93					△△				
IMPLEMENTATION	22-Nov-93	18-Nov-94					△———————————△				
Implement IRMP	22-Nov-93	18-Nov-94					△———————————△				
Procure Equipment	22-Nov-93	30-Sep-94					△—————————△				
Prepare New IRMP, PYBP, MYPP	22-Nov-93	31-Mar-94					△——∧				

IV - D   Telecommunications

The Bureau provides telecommunications support for each of its offices. This support falls into three broad categories: Telephone, data communications, and radio systems to support the need for communications from the field. Commercial radio services may be furnished provided that such use is consistent with national policy and security considerations as required in Departmental radio communications Handbook, 377 DM Chapter 1.5.

1. FTS-2000
- The BLM has replaced its long distance voice communications system with FTS-2000 service.
- The majority of BLM's data communications services have been converted to the FTS-2000 system. The remaining services will be converted by the end of FY-93.
- The BLM's electronic mail services are now provided by FTS-2000 Mail.

2. ALMRS/Modernization Contract
Included in the Request for Proposal for the ALMRS/Modernization contract is a requirement to install a local area network at each BLM office and provide connectivity between each network and the wide area network which is FTS-2000.

3. Radio Frequency Authorization
The Washington Office Branch of Information Technology (WO-872) provides Bureau Frequency Management and promulgates policies and standards for frequency utilization. The National Telecommunications and Information Administration (NTIA), in its capacity as telecommunications advisor to the President, has directed all Federal radio users to begin implementing new technologies in the 162-174Mhz band. The purpose is to make additional radio channels available to federal agencies for mobile 2-way radio networks by achieving national spectrum management efficiency goals. After January 1, 1995, all new equipment, and after January 1, 2005, all BLM radio equipment must be capable of operating within a 12.5Khz channel.

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4. Wide Area Networks

In FY-92, the BLM shifted from Star Network to Packet Switch Network service through FTS-2000. During FY-93, AT&T will conduct an analysis of packet switch service to determine if the change was cost effective and adequately serves the functions intended. The analysis will be based on the first several months of traffic usage. The Washington Office Branch of Information Technology (WO-872) will evaluate the results of the analysis and with the Service Center's technical input, will propose a business decision to BLM's management.

IV - E   Security

The BLM is actively engaged in the protection of information resources against loss; theft; natural disasters such as fire or flood; improper use; unauthorized access or disclosure; alteration; manipulation; violations of the Privacy Act; physical abuse; or unlawful destruction. In December of each year the Branch of Information Technology (WO-872) prepares an Annual Bureau Security Plan which includes a summary of activities taken to implement the security program during the past fiscal year and planned during the current fiscal year.

Each BLM State Office, BIFC, the Service Center and the Washington Office are responsible for establishing and administering a program which provides for an appropriate level of protection for the information resources under its aegis. Installation Security Officers have been designated to provide technical assistance for, and coordinate the management of, the Bureau's information resources security program.

1. Guidance

The Automated Information Systems Security Manual and Handbook (1264) draft was distributed Bureauwide for comment on November 16, 1992. These documents provide the umbrella program for Administrative, Personnel, Technical and Physical security. The documents provide policies and guidelines, minimum requirements, responsibilities, and procedures for the development, implementation and maintenance of an automated information system (AIS) security program for the BLM. The BLM guidelines implement those found in OMB Bulletin No. 90-08 (Guidance for Preparation of Security Plans for Federal Computer Systems that Contain Sensitive Information). Completion of the Automated Systems Security Manual and Handbook is scheduled in FY-93.

2. Awareness Training

The Computer Security Act of 1987 requires each agency to provide mandatory periodic training of all persons involved in the management, use, or operation of Federal computer systems that contain sensitive information. In FY-93 the Washington Office Division of Information Resources Management (WO-870) will

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distribute two videos to be used in security awareness training. The videos are titled (1) Virus: Prevention, Detection, Recovery and (2) Lost Control: Illegal Software Duplication. Also in FY-93, WO-870 will coordinate and provide LAN security training at the Service Center for Installation Automated Information System Security Officers and Local Area Network Administrators.

3. ALMRS/Modernization
A security management subsystem will be in place that will control access to all information such that only properly authorized and specifically identified individuals will have access to designated parts of the system and will have only those permissions necessary to read, write, create, delete, or modify those files, catalogs, directories, etc. The ALMRS/Modernization Project Office will prepare a task order after contract award in 1993 which requires the contractor to develop a Security Management Plan describing procedures to be taken to protect BLM data. The management plan will address such things as implementing processes, system architecture and integrity, configuration management, and physical security. A description of the items to be included in the plan can be found in the Request For Proposal.

4. Sensitive Systems
A sensitive system is one that contains information that requires protection due to the risk and magnitude of loss or harm that could result from inadvertent or deliberate disclosure. All sensitive systems are required to have a risk analysis and a Continuity of Operations Plan. The plan is to be tested annually and certification must be completed every three years. The BLM currently lacks a process to certify sensitive systems as secure. A task order will be written for contractor support in the preparation of a certification process for BLM's sensitive systems. The process is expected to be in place in FY-93.

5. Assurance
Management assures itself of the security of its IRM Resources in a large part through the formal review process. See Chapter section II-C of this plan for a discussion of the IRM Review program.

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IV - F   System Operation and Maintenance

The BLM currently operates automated systems in each of its field offices on various platforms. As the new Administrative systems become operational, the Honeywell minicomputers currently maintained at the State Offices and the BIFC will be removed from service. The current case recordation ADP capabilities operated on the Honeywells at the States and the Service Center will be replaced by the ALMRS system.

Principal operation and maintenance activities will be shifted to the new equipment operating in a Unix environment. A period of dual operation is unavoidable. The ALMRS/Modernization Implementation Plan will describe efforts to minimize the impact and duration of this period. Modernization will result in installation of minicomputers, workstations and microcomputer (PC's) operating in the Unix environment throughout the BLM. Most of these will be linked through local and wide-area networks and have access to the capabilities of the FTS-2000 system. This considerable expansion of ADP resources will require extensive re-training to operate and will place considerable demands on the BLM's ADP support organization. (Section V of this plan addresses training issues.)

The current Prime minicomputers located in State, District, and some Resource Area offices will continue to be maintained and operated to support GIS capabilities until implementation of the Resources Option of the ALMRS/Modernization contract. During FY-93, the BLM will conduct a capacity analysis of the Prime minicomputers to identify any opportunity to efficiently use any excess capacity that may be found. Performance measurement sensitive to response time and user-contention will be included in the analysis.

1. Operating Plans and Procedures

The Bureau has established procedures for the continued operations and maintenance of IRM Hardware and Software to ensure that systems are operating with a minimum of disruption. The following items are required for each of the offices in accordance with BLM and Departmental policies.

    a. Statewide Inventory of Current Hardware and Software Systems is maintained;

    b. Program Change and Modification Procedures are in place;

    c. Proper Maintenance Manuals and Handbooks are in place;

    d. Statewide Security Plan has been prepared and is in place;

    e. Continuity of Operations Plan (COOP) has been prepared and is being followed;

    f. Electronic Records management procedures outlined in 382 DM 11 are followed.

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2. Continuity of Operations Planning (COOP)

In order to ensure continued operation of critical automated systems in the event of interruption of routine operations that may be caused by extended power failure or natural disaster, offices that rely on automated systems for their operation are required to plan for and identify procedures that would enable the operation of those systems at another site.

3. Systems Performance and Measurement/Management (SPM/M)

SPM/M is a mechanism for the collection and analysis of critical data necessary to measure effectiveness of existing IRM systems at specified levels of service to system users, and to provide supporting data for the acquisition of additional or different system components. A Manual (1269) was published on October 5, 1992 which provides the policy and guidance necessary for the development, implementation, continued operation and management of a SPM/M program within the BLM. Draft implementing directives covering capacity management for minicomputers are planned to be published in the 3rd quarter of FY-93. Draft implementing directives covering capacity management for networks is planned to be published in the 4th quarter of FY-93.

In order to provide tools necessary for the effective measurements of the Prime minicomputers needed to execute the SPM/M guidelines, the Washington Office funded procurement of SPM/M software in FY-92 for a number of States. Funding has been allocated and the procurement of software for the remaining States will be completed in FY-93.

4. ADP Inventories

ADP Resource Inventories maintained and coordinated by the Department's Office of Information Resources Management meet the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and recurring requests for information from the General Services Administration. ADP resource inventories are developed and maintained:

    a. To provide a tool for managing ADP assets, establish proper accountability for these assets; assist in determining future needs, trends, information sharing, systems sharing, and application sharing possibilities; and eliminate unnecessary duplication of systems.

    b. To assist in analysis and tracking of ADP resources costs, help to identify obsolete and excess equipment.

    c. To allow quick identification of ADP resources which can be reallocated, shared or used to increase compatibility between offices.

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IV - G   Mapping Sciences/Geographic Information System (GIS)

A. Introduction

Mapping Sciences includes the functions/disciplines of cartography, Geographic Information Systems (GIS), remote sensing, photogrammetry and photo lab activities. It provides the expertise, technology, products, services and quality control necessary for the collection, automation, manipulation, storage, retrieval and portrayal of spatial information for a wide variety of applications in a vast array of formats.

The methods/techniques and capabilities of resource mapping support in the Bureau continue to evolve due to increased automation and demand for digital products and services. The change in support emphasis from manual to digital methods has increased responsibility for data standards and documentation. Digital base map data must have better standards and full documentation because of the potential to reuse this data for many resource needs both within and outside the BLM.

Modernization requires that the unplanned growth in mapping science be directed and managed to maximize its efficiencies and capabilities to build the resource data bases in the future and maximize the use of the USGS National Mapping Products. The ALMRS project will provide the link between land and mineral records, GCDB and resource data.

B. Planned Activities

Technology improvements and increased data requirements influence changes in the application of the Mapping Sciences/GIS programs. The Mapping Science Workshop held in Anchorage in 1992 identified tasks that have been initiated that will enhance current policy, establish new policy and implement procedures that will result in more efficient and uniform application of these technologies.

The GANNT chart at the end of this section sets out the schedules and responsible offices for accomplishing the following tasks:

> 1. **Policy and Guidance**
>> a. Geographic Sciences Policy Statement (WP-1)
>> This policy provides policy and guidance for Mapping Science and GIS activities and also provides coordination efforts with related activities such as Cadastral Survey and GPS.
>>
>> b. BLM Transition Policy (WP-2)
>> This policy will provide guidance to transition data and applications from MOSS GIS to the COTS system after contract award of the ALMRS system.

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c. Disclaimer Policy (WP-3)
This policy will provide assurance that GIS products generated for public use or distribution are properly documented.

d. Mapping Science Cost Recovery Policy (WP-7)
This policy provides for the identification of mapping science products and processes to be included in the BLM cost recovery system.

e. BLM Digitizing Policy and Handbook (WP-10)
This document will direct BLM offices to digitize base map themes to USGS DLG Standards and Format. The handbook provides general guidelines for efficient digitizing procedures.

f. Resource Base Data Policy and Handbook (WP-11)
This policy will direct BLM offices to be in compliance with OMB/FGDC objectives to standardize base mapping data in order to reduce duplication of effort and contribute to the population of the National Digital Cartographic Data Base (NDCDB) as well as contributing to the effective management of BLM-administered lands.

g. Mapping Science Datum Conversion Policy (WP-14)
This policy will provide guidance in converting NAD27 to NAD83 and other datum and technical issues.

h. GIS Policy and Manual (WP-15)
This document will provide policy and guidance for use of the new COTS GIS system acquired from the ALMRS contract. The GIS manual (9167) will be a sub-category of the 9160 series of manuals for mapping sciences and will include a digitizing handbook.

i. Mapping Science Manual (9160) (WP-6)
This Manual provides policy and guidance for Mapping Science/GIS activities from a broad perspective. Other manuals/handbooks currently being updated and/or developed in the 9160 series of manuals are Cartography (9161), Aerial Photography (9162), Remote Sensing (9163, Photogrammetry (9164) and GIS (9167).

j. Spatial Metadata Guidelines (WP-12)
This document will incorporate a plan proposed by FGDC to standardize metadata to be used by Federal, State and local organizations.

k. Managers Guide for Geo-Positioning Systems (WP-9)
This guide provides users/managers assistance in selecting the most economical mapping tools or techniques for locating natural or cultural features and their geographic coordinates.

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2. Inter-Agency Activities and Agreements

a. FGDC/IGDC Activities (WP-5)

The Federal Geographic Data Committee (FGDC) promotes the coordinated development, standardization, use, sharing, and dissemination of geographic data. The FGDC is composed of representatives from all Departments within the federal government in addition to other Agencies such as NASA, FEMA, Library of Congress, the Smithsonian Institution, etc. Order No. 3159 of the DOI Manual defines the structure and role of the Interior Geographic Data Committee (IGDC). The IGDC will coordinate the development, use, sharing, and dissemination of surveying, mapping, and related spatial data activities within the DOI. To this end, there are approximately 14 Subcommittees and Working Groups to the FGDC and four similar groups to the IGDC in addition to the four new Work Groups established per the DOI Mapping/GIS Implementation Plan as described in paragraph 2.d.

b. Blanket MOU for BLM/USGS (WP-8)

This MOU sets forth the general terms and conditions under which BLM and USGS will coordinate the production and exchange of conventional map products, digital cartographic data, remotely sensed data, related research efforts, and technology development in order to make effective use of each Bureau's products and services. Cartographic and digital products exchanged between the two agencies will comply with specific product standards adopted by the Interior Geographic Data Committee (IGDC).

c. NACo

This program establishes a partnership between the BLM and the National Association of Counties (NACo) whereby the BLM and NACo establish coordination, communication and cooperation between the two entities on issues of common concern. The goal is to establish common standards, share data and expertise and overall to achieve cost savings.

d. DOI Mapping/GIS Task Force

The DOI task force identified the following four activities in which work groups would be set up to include members from DOI agencies (including BLM staff from WO-870) to pursue the potential for reducing duplication of effort in data acquisition, the use of compatible data formats, and the potential for future data sharing activities and research:

1. Clearinghouse Working Group
2. Telecommunications Working Group
3. Policy Working Group
4. Base Cartographic Working Group

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3. Reports/Reviews

a. <u>Alternative Management Control Review (AMCR) (WP-4)</u>
This review was initiated in response to an Office of Inspector General (OIG) Audit in 1991, and the review will be completed by June 1993. The purpose of the review is to identify and quantify the inherent tasks as expressed in current management; and, to identify ways to improve probability for management success.

b. <u>Mapping Science Annual Report (WP-13)</u>
This report will provide procedures to be used by the states to generate an annual report of mapping activities. It will establish a consistent reporting mechanism for the mapping sciences disciplines.

4. Training/Awareness

a. <u>GIS Training and Awareness Program (WP-16)</u>:
This program will be developed to provide managers and users an overview of the capabilities of GIS and to provide training for users.

b. <u>Managers Guide for Geo-Positioning Systems (WP-9)</u>
This guide provides users/managers assistance in selecting the most economical mapping tools or techniques for locating natural or cultural features and their geographical coordinates.

SURE I CAN GIVE YOU MAPS AT DIFFERENT SCALES !

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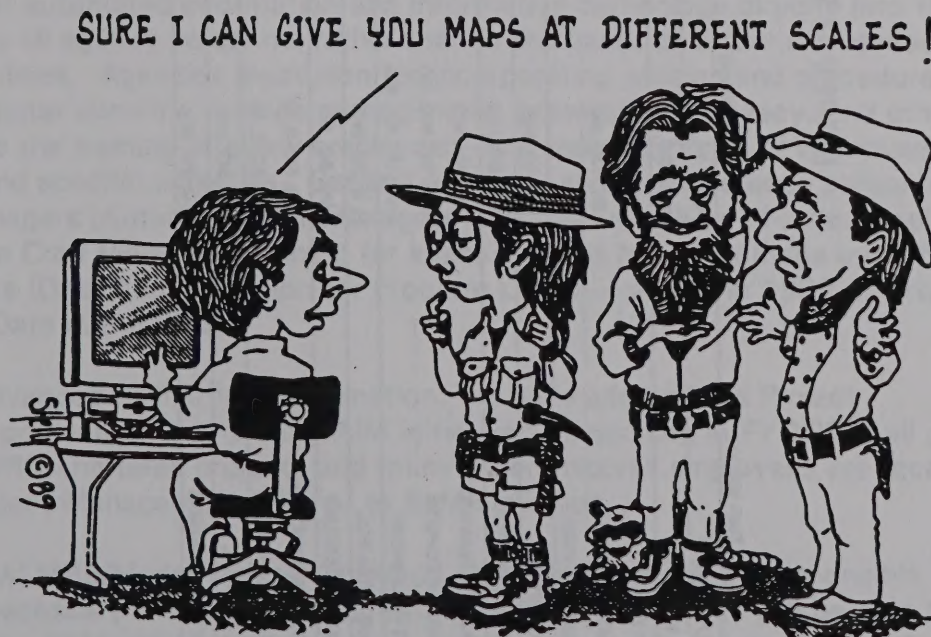
MAPPING SCIENCES/GIS WORK PLANS

Task Name	Resources	Start Date	End Date	1991	1992	1993	1994
WP1 GEO SCI POL STMT	WO	22 Sep 92	23 Feb 93				
WP2-BLM GIS TRNG POL	WO, CO, SO	14-Aug-92	20-Jul-93				
WP3-DISCLMR POL	WO, SO, SC	15-Jun-92	23-Feb-93				
WP4-ALT/MGMT/CNTL/REV	SC, WO, SO	2-Nov-92	1-Jun-93				
WP5-FGDC/IGDC ACTVTES	WO	1-Oct-92	30-Sep-96				
WP6-MS MANUL (9160)	SC, SO, WO	15 Jun 92	13 Jul 93				
WP7-MS COST RECVRY POL	CO, SO, WO	15-Jun-92	4-Jan-94				
WP8-BLNKT MOU FR BLM/GS	SC, WY, WO	15-Sep-92	27-Aug-93				
WP9-MGRS GUIDE/GEOPSTN	WY, SC, WO, SO	1-Oct-91	15-Jun-94				
WP10-BLM DIG POL/HNDBK	WO, MT, NV, SO	15-Jun-92	27-Sep-93				
WP11 RES BASE DATA POL	L S, SC, WO	15 Jun 92	3 Dec 93				
WP12-SPAT MDATA GUIDLNS	WO, SO, SC	15-Jun-92	30-Sep-93				
WP13-MS ANNUAL REPORTNG	CO, SC, S, W	15-Jun-92	30-Aug-93				
WP14-MS DATUM CNVER POL	UT, SC, S, W	15-Jun-92	1-Jul-93				
WP15 GIS POL/MANUAL	SC, SO, WO	1 Apr 92	30 Sep 94				
WP16 DEV/CRD GIS TRN/AWR	SC, SO, WO	1-Oct-96	6 Mar 96				

CHAPTER V
PEOPLE

V - A   Personnel

A. IRM Staffing Plan

A draft report completed in August, 1989, provided findings and recommendations regarding the IRM organization at the State, District, and Resource Area levels in the BLM. Appendix A of the report is a decision document, which was approved and subsequently documented by WO IM 90-212 (dated December 27, 1990). The Appendix and Instruction Memorandum documented two categories of decisions:

> 1) the IRM functions of key people in the BLM -- used to assure delegation of authority, work assignments, and accountability; and
>
> 2) the organizational structure for AIM at the State, District, and Resource Area levels -- including the placement within one organizational unit of certain "core" IRM functions, such as data administration, records administration, security, and LIS coordination. All changes to the organizational structure were made by the end of FY 1990.

B.   Training

Training is particularly important in view of the changing nature of information resources management. Decentralization of information technology has placed the management of automated information and information technology directly into the hands of nearly all agency personnel rather than in the hands of a few employees at centralized facilities. Agencies must plan for incorporating policies and procedures regarding computer security, records management, protection of privacy, and other safeguards into the training of every employee. Past training efforts have focused on both general and specific activities. General overview session have been presented to most BLM managers (Automation for Managers Course), as well as all other employees (LIS Orientation Core Module). Training for specific topics has been made available to program leaders (Data Administration for Program Leads -- revised in 1992 as Program Success with Data in the 90's).

As BLM has advanced further into automation, we have adopted the Project Management approach for completing AIM initiatives. Beginning in FY 1992, all project leaders for IRMRC chartered projects and many other involved employees are receiving a course in Project Management tailored to BLM's mission.

As part of the ALMRS/Modernization Contract, the contractor will be responsible for providing the necessary on-sight training required so that employees will be able to use the new system. BLM will identify the most appropriate source for each type of training activity, in order to develop the necessary skills, as well as identifying and

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developing any addition training needs not provided by the contractor.

Part of this effort includes the "Modernization Training Pre-requisites" recently (November, 1992) developed by the ALMRS/Modernization Training Work Group. Their report identified the pre-implementation requirements and will be utilized and then reworked after the contractor's training plan is approved by the BLM. This outline of necessary training is broken down into two principle categories: 1) User Training, including systems functions and capabilities; and techniques for retrieval, report generation, and case processing; 2) Technical Training, including data and database administration; systems administration and maintenance; and training for programmers and user support staff.

C.   Hiring Policy

As the BLM strives to increase its automation capabilities, we are having to increase both the type of skills and the number of skilled persons at all levels of the organization. The skills needed will be acquired using a combination of education and training, recruitment, and contracting. A coordinated strategy is necessary to produce the proper skill mix throughout the organization, within expected funding levels. Presently, recruitment strategies have been applied to those positions required for highly specialized technical aspects of AIM-specific efforts. WO-830 provides the oversight for this recruitment strategy. "An AIM Skill Acquisition Strategy Decision Document" was issued under WO IM 91-132 (dated December 21, 1990). This memorandum implemented the strategy outlined in the Task Force report of the same title. This strategy outlined the BLM's guidelines and criteria to be used to help decide approaches to skill acquisition.

D.   Performance

As the BLM moves into the era of automation/modernization, identification of specific functions and responsibilities are required to ensure an adequate framework is created for accountability and responsibility. Automation responsibilities can vary throughout the organization. Therefore, pertinent IRM functions must necessarily be reflected in positions descriptions (including those needs being incorporated into recruitment for vacant positions), individual development plans, and performance evaluation criteria.

In FY 1990 steps were taken to produce and ensure that standard elements were incorporated into all functional statements, position descriptions, etc. Revised personnel documents were also prepared for: managers, program leaders, users, data administrators, records administrators, DSD Administration, IRM chiefs, LIS coordinators, computer specialists, computer assistants, mapping sciences positions, and for technical aspects of ALMRS, GCDB, and GIS. All documentation necessary to implement these changes were completed by November, 1990.

Periodic review and/or revisions of these standard documents will be made as deemed necessary by management. No additional reviews are presently scheduled.

V - B   In-Reach & Outreach

The BLM is undergoing a cultural transition, whereby we must manage the change brought about through automation and how it effects the attitudes and cultural environment of the BLM. The concept of "user acceptance" as endorsed by BLM, is broadly defined to include consideration of the effects of automation on both individual and cultural environments. Identification of the effects is only part of the job, modification of the environments to include automation as an acceptable or desired cultural value is, also, necessary.

Impacts on the BLM culture are less visible, but may be more dramatic than the change brought about by new processes. Where automation comes in conflict with BLM culture, it will affect the ability to implement automation initiatives. Where the public has accepted the BLM culture, their acceptance of automation may also be affected. Additionally, public expectations of how the BLM will respond to their needs may come in conflict with new response methods and procedures in an automated environment.

Proper communications will play a large part in effecting the desired cultural change and user acceptance, thereby, making both inreach and outreach efforts essential. We must provide all users of automation with accurate and clear information about how automation changes will effect our initiatives.

The scope and the importance of the impacts of automation on cultural and individual values have been evaluated through efforts such as the "Training Needs Analysis", in order identify the appropriate actions to take to ensure that the acceptance of automation will facilitate, not inhibit, the installation and implementation of new automation initiatives.

In response to the evaluations, during FY 90, the BLM developed an outreach strategy describing our automation objectives, plans, and schedules for implementation. The outreach strategy included identification of other federal agencies, local and state governments, professional associations, and organizations, and key groups and individuals that are:
  1) interested in BLM's data;
  2) interested in data exchange and sharing; and/or
  3) expecting improved access to BLM managed data.

During FY 92, this strategy was updated and formalized into the "Outreach Communication Plan". This plan is a two part effort outlining both a short-term (2 years) and a long-term (5 years) program. This plan identifies objectives, methods, and techniques to accomplish specific outreach goals. The goals identified in the Plan center around four areas of emphasis:

1) Congressional support;
2) Departmental management and staff support;
3) Support from central management agencies and public entities; and
4) International partnerships and exchanges.

Final approval of the Outreach Communication Plan is anticipated during the second quarter of FY-93.

All outreach efforts will interact with the BLM's Inreach Strategy for ALMRS/Modernization, presently being developed by the Service Center. This strategy will ensure that there will be a basic understanding and communications of BLMs automation goals, objectives, plans and schedules for BLM's WO, SC, and Field Office personnel. The interaction of the Outreach and Inreach plans will ensure a comprehensive training and informational support plan for BLM's personnel. The Inreach Strategy for ALMRS/Modernization will be completed during FY93.
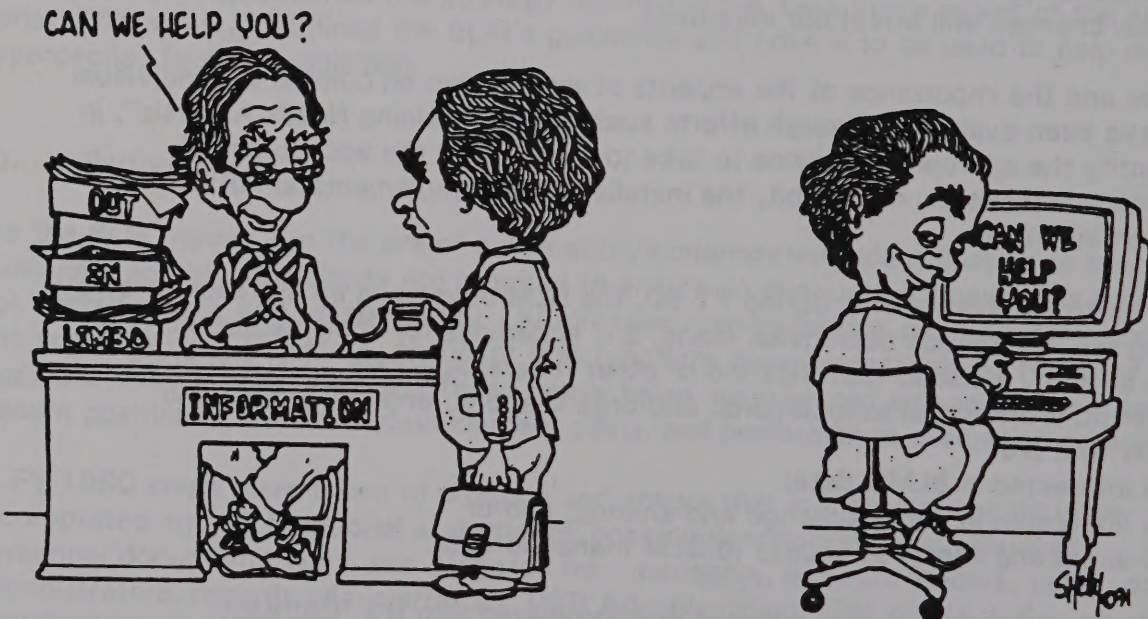
V - C   Organization

1. Office of Management and Budget (OMB)

OMB Circular No. A-130 -- Management of Federal Information Resources established policy for the management of Federal information resources, and provides procedural and analytical guidance for implementing specific aspects of the policy.

2. Department of Interior (DOI)

The DOI, Office of Information Management (PIR), is charged with supporting mangers, program specialists, and information users in the performance of their duties and responsibilities. The PIR (assigned to the Assistant Secretary - Policy, Management and Budget), has been delegated the authority to act as the focal point for DOI IRM issues. The PIR has the goal of monitoring IRM activities and assuring that IRM goals, objectives, and activities are in consonance with the overall goal of the DOI. The DOI IRM program is developed and maintained in accordance with four major elements, which constitute the program policy structure: 1) IRM Program Management; 2) Information Technology Management; 3) Telecommunication Management; and 4) Data Administration Management.

The BLM:

The establishment of formal roles and structures were put in place at the Washington Office and the Service Center, in order to provide effective mechanisms for productivity and accountability in the management of AIM. These roles and structures were based on the WO-SC AIM Roles and Structure Study" completed in June, 1990. The implementation of the decisions of this document were transmitted under WO IM 90-563, dated August 2, 1990. The implementation effort was established through the use of an Oversight Team, which identified action steps, schedules, and officials responsible for specific implementation actions. (distributed under WO IB 91-5).

3. Bureau Management Team (BMT)

The BMT meets in order to focus on BLM-wide management issues and to provide a forum for discussion and resolution of major policy issues. The BMT develops BLM-wide objectives, personnel policy and program and budget priorities and monitors implementation progress to ensure that program goals and objectives are being met. With regard to AIM, the BMT has the responsibility for IRM Strategic Planning.

Membership: Director
        Deputy Director
        Assistant Directors
        Deputy Director for External Affairs
        State Directors
        Service Center Director
        Director, Boise Interagency Fire Center

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4. Headquarters Management Team (HMT)

The WO HMT members establish long-range strategic plans, provide budget support, establish functional policies and procedures, and provide BLM-wide oversight. The HMT is the first line of communications and coordination with all outside interests at the national level. This role makes the understanding, advocacy, and management of AIM essential to its success. The roles and responsibilities of the HMT as outlined here are as formalized in the WO-SC Roles and Structure Study - Related to AIM." The decisions made in this study state that each HMT member will: 1) establish policies, procedures, objectives, budgets, and evaluations for the AIM aspects of their programs; 2) analyze AIM issues which cut across programs and make decisions coordinating AIM policies, procedures, objectives, budgets, and evaluations; 3) provide consistent, coordinated messages to the Department, OMB, Congress, and outside interests about the Bureau's AIM activities; 4) provide guidance and direction to the SC consistent with approved AIM roles, functions, and structures; 5) understand, use, advocate, and as appropriate, implement and manage BLM's AIM programs and activities; and 6) participate in the improvement of long-range Bureauwide planning, which will establish the framework for AIM planning.

Membership: BLM Director
Deputy Director (Chair)
Deputy Director for External Affairs
BLM Assistant Directors

5. IRM Review Council (IRMRC)

The IRMRC is the highest level review board in the BLM with responsibility for overall AIM policy and projects that are BLM-wide in scope, require significant funding or priority shifts, or span two or more AD's program. The Director and Deputy Director have the overall responsibility for AIM within the BLM, and serve as the chairperson of the IRMRC.

Membership: Director/Deputy Director (Chair)
Deputy Director for External Affairs
Assistant Directors (All)
Service Center Director
Field Committee Chairperson
State Director (rotating)
Associate State Director (rotating)
WO IRM Division Chief (non-voting member)
The Bureau Budget Officer (advisor)

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6. Program Project Boards (PPB)

The PPB is responsible for making management decisions on AIM Projects and providing policies that are within the program authority of a single Assistant Director (AD) and does not require add-on funding or BLM-wide commitments. Each WO AD, as well as the Deputy Director for External Affairs has a PPB.

Membership: Assistant Director (AD) [Chair]
> Chair of AD's AIM Team (Deputy Assistant Director in most cases)
> AD's Divisions Chiefs
> Other members designated by the AD

7. Field Project Board (FPB)

The FPB is responsible for making management decisions on AIM Projects and providing policies that are within the program authority of a single State Director and does not require BLM-wide commitments.

Membership:
> State Director [Chair]
> Associate State Director
> Deputy State Directors
> State IRM Chief
> One or more State Directors
> Chairperson of the Field Committee
> SC Director or representative (optional)
> Designated Project representative

8. Assistant Director's AIM Team

In addition to the review boards for AIM Projects, each of the Assistant Directors maintains an AIM Team to represent the interests of his/her program area.

Membership:
> Deputy Assistant Director
> Assistant Director's Data Administrator
> One Division Chief
> Additional Members Appointed by DAD

9. IRM Advisory Council (IRMAC)

The IRMAC provides advice and recommendations to the WO Chief, Division of IRM (WO-870) on IRM related issues. The IRMAC serves as a focal point for reviewing direction and guidance, shares ideas and experiences in the IRM program, and provides advice and comment on AIM activities.

Membership:
> Chief, Division or Branch of IRM for each State
> Chief, Division of IRM for BIFC
> Chief, Division of Systems Operations, Maintenance and
>> Support Services at the Service Center
> Chief, Branch of IRM Services at the Washington Office.
> Designated Ex-officio (non-voting) members

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10. Service Center (SC)

The roles and responsibilities of the SC was formally outlined in the "WO-SC Roles and Structure Study-Related to AIM." The role of the SC was refined to include performance of the following general functions: 1) centralized operational work; 2) technical expertise and assistance to the field and WO in program areas; 3) exploration and research of new or pressing program concerns; 4) scarce skills assistance to the states; 5) support to users of Bureauwide applications; 6) development of new automation systems, applications, and innovations; and 7) technical policy and direction support for the WO. Under this outline of their role, the SC presently has the lead role in the management of the ALMRS/Modernization Project. The SC also plays a vital role in the development and implementation of other AIM projects, particularly Interim Release 1 and Records Release 2.0.

11. Washington Office IRM (870)

The Washington Office, Division of IRM (WO-870) is charged with providing leadership, policy and guidance, program direction, and coordination for management of BLM-wide manual and automated information systems, records administration, data administration, mapping sciences, telecommunications, ALMRS/Modernization Sponsor support, AIM Project assistance, and BLM-wide long-range planning and analysis of the IRM program. The Office' mission is to serve the BLM modernization effort by developing and ensuring appropriate distribution of IRM policy and guidance. Included within the responsibilities of WO-870 is the operations and maintenance of the Washington Office Computer Center, support for office automation systems, and security responsibilities for IRM related systems and services.

12. State, District and Resource Organizations

The BLM is a decentralized agency with offices spread throughout the eleven Western states, and an Eastern regional and District office. Each state is divided into several District Offices, with each District, subsequently divided into 2-5 Resource Area offices. Given this decentralized structure, modernization efforts, skills, and needs vary greatly from location to location. In an effort to define the proper roles and functions under this structure, a BLM Task Force conducted a study to analysis and recommend the best approach to utilize our existing skills and to realign our organizational structure according to our changing needs. These roles and responsibilities were formally established through the implementation of decisions made following completion of the "Field Office IRM Organizational Study", completed in December, 1989. The decisions were formalized with the issuance of WO IM 90-212 (dated December 27, 1989)

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IRM TACTICAL PLAN
KEY WORD INDEX

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